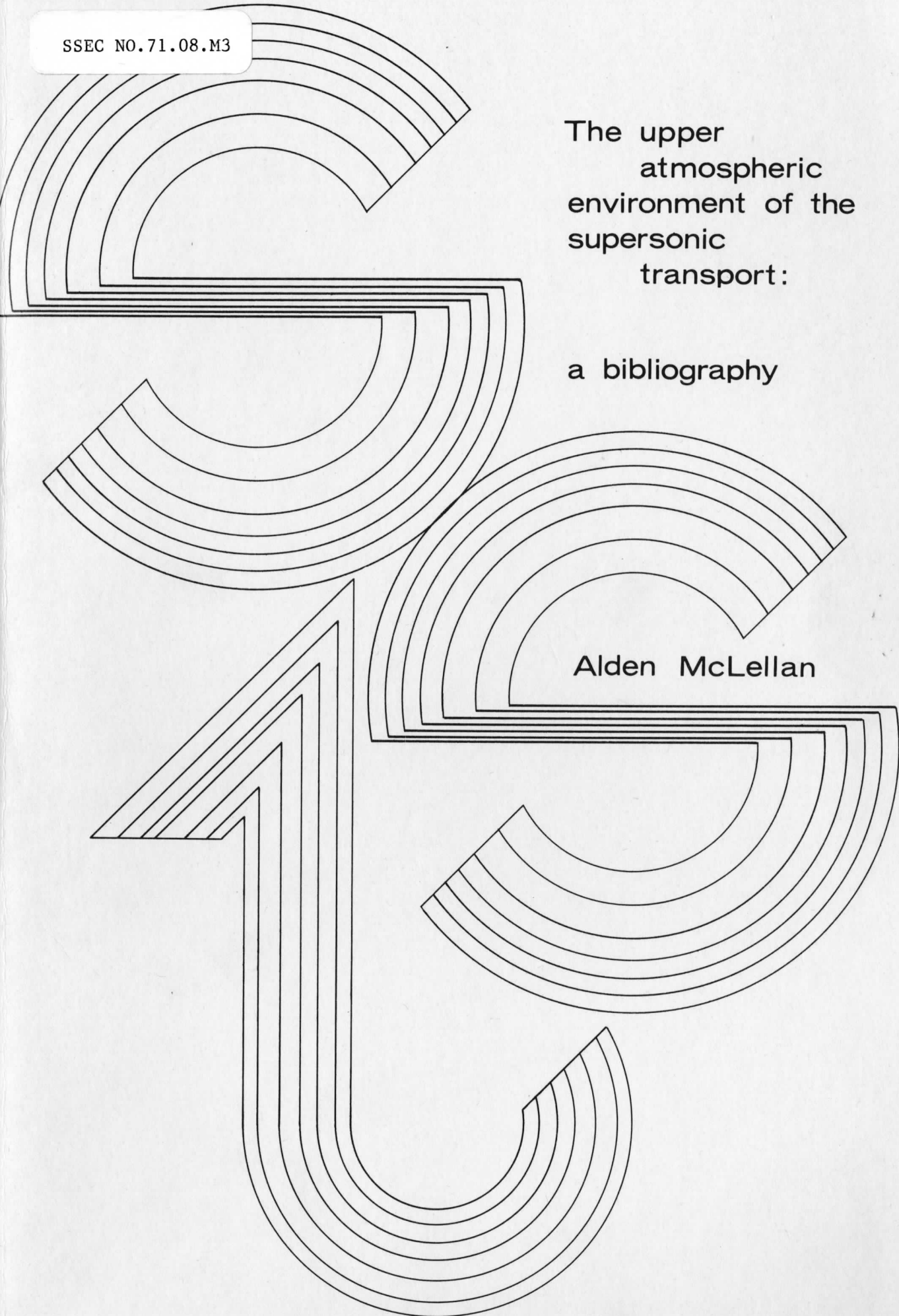


SSEC NO.71.08.M3

The upper
atmospheric
environment of the
supersonic
transport:

a bibliography

Alden McLellan



THE UPPER ATMOSPHERIC ENVIRONMENT
OF THE SUPERSONIC TRANSPORT:
A BIBLIOGRAPHY

BY

ALDEN McLELLAN IV
SPACE SCIENCE AND ENGINEERING CENTER

FIRST PRINTING

AUGUST, 1971

SECOND PRINTING

JANUARY, 1972

THE UNIVERSITY OF WISCONSIN, MADISON

LIBRARY OF CONGRESS
CATALOG CARD NUMBER:
74 - 168731

UWI - S.S.E.C. - GAP - 71 - 002

COPIES MAY BE ORDERED FROM:

*PUBLICATIONS OFFICER
SPACE SCIENCE AND ENGINEERING CENTER
UNIVERSITY OF WISCONSIN
1225 WEST DAYTON STREET
MADISON, WISCONSIN 53706
U.S.A.*

*\$5.00 PER COPY
COVER ARTWORK BY KAREN NIELSEN*

THE UPPER ATMOSPHERIC ENVIRONMENT OF THE
SUPERSONIC TRANSPORT - A BIBLIOGRAPHY

ALDEN MC LELLAN IV

SPACE SCIENCE AND ENGINEERING CENTER
UNIVERSITY OF WISCONSIN
1225 WEST DAYTON STREET
MADISON, WISCONSIN 53706

I. INTRODUCTION

SUPERSONIC TRANSPORTS (SST) ARE PRESENTLY BEING DESIGNED TO TRAVEL AT THE 20-30 KM LEVEL IN THE LOWER STRATOSPHERE. BY THE YEAR 1985, IT IS ESTIMATED THAT APPROXIMATELY 500 SUPERSONIC TRANSPORTS WILL BE OPERATING IN THIS UPPER ATMOSPHERIC ENVIRONMENT AND THAT THE IMPACT OF EXHAUST OUTPUT OF CONTAMINANTS IN THIS REGION WILL CAUSE A RELATIVELY MASSIVE ENVIRONMENTAL CHANGE. THIS BIBLIOGRAPHY IS PRESENTED IN ORDER TO OBTAIN A BACKGROUND FOR WHAT IS KNOWN ABOUT THE PHYSICAL AND CHEMICAL PROPERTIES OF THE LOWER STRATOSPHERE SO THAT FURTHER RESEARCH CAN BE DONE ON THE CHANGES THAT WILL TAKE PLACE UPON THE INTRODUCTION OF THE EXPECTED CONTAMINANTS FROM A TRAFFIC PATTERN OF SUPERSONIC TRANSPORTS.

TOWARD THIS END, THIS PAPER HAS BEEN DIVIDED INTO SIX SECTIONS. THE FIRST SECTION IS A LISTING OF SOME GENERAL REFERENCES PERTAINING TO THE STRUCTURE, COMPOSITION AND PHYSICAL DYNAMICS OF THE STRATOSPHERE. SECTION II CONCERNS THE CONSTITUENTS THAT MAKE UP THE COMPOSITION OF THE AMBIENT GASES

AVAILABLE TO UNDERGO CHEMICAL REACTIONS WITH THE POLLUTANTS. REFERENCES ON OZONE AND WATER VAPOR WILL BE CONSIDERED AS WELL AS PARTICULATE MATTER, TRACE GASES AND RADIATION ABSORPTION. THE TEMPERATURE OF THE STRATOSPHERE, WHICH GOVERNS THE RATE OF MOST CHEMICAL REACTIONS, AND HEAT FLUX VARIATIONS, WHICH CONTROL TROPOSPHERIC AND STRATOSPHERIC MIXING RATES, ARE CONSIDERED IN A SEPARATE SECTION, SECTION IV. SECTION III CONCERNS THE VERTICAL AND HORIZONTAL WINDS AND TRANSPORT PROPERTIES OF THE UPPER AND LOWER STRATOSPHERE. EVEN THOUGH THE STRATOSPHERE IS A RELATIVELY QUIESCENT REGION WITHIN THE ATMOSPHERE, THERE ARE MECHANISMS FOR THE VERTICAL TRANSPORT OF MATERIAL INTO THE STRATOSPHERE FROM THE TROPOSPHERE (E.G. VOLCANIC ERUPTIONS) AND FROM THE MESOSPHERE (E.G. METEORIC DUST). THE CHARACTERISTICS OF THE UPPERMOST PART OF THE STRATOSPHERE AND THE PROPERTIES OF THE MESOSPHERE ARE CONSIDERED IN SECTION VI. REFERENCE TO PAPERS ON THE CIRCULATION, SYNOPTIC DYNAMICS, AND ENERGETICS OF THE STRATOSPHERE ARE CONTAINED IN SECTION V.

II: THE LOWER STRATOSPHERE

SINCE THE OZONE LAYER OF THE EARTH'S ATMOSPHERE IS SITUATED IN THE LOWER STRATOSPHERE, THE OBSERVATIONS OF THIS LAYER BECAME ONE OF THE FIRST METHODS OF GETTING A HANDLE ON AIR FLOW WITHIN THE REGION. ALTHOUGH THE DETAILS OF THE METEOROLOGICAL PROCESSES THAT LEAD TO LARGE-SCALE OZONE VARIATIONS ARE NOT KNOWN, IT IS WELL KNOWN THAT THE TOTAL OZONE CONTENT OF THE NORTHERN HEMISPHERE INCREASES BY A LARGE FACTOR DURING THE WINTER MONTHS (NOVEMBER THROUGH MARCH) WHICH IS NOT DUE TO PHOTOCHEMICAL PROCESSES. THIS INCREASE IN OZONE, WHICH IS LOST DURING THE REMAINDER OF THE YEAR, IS EITHER MOVED INTO THE UPPER STRATOSPHERE OR IS MIXED DOWN INTO THE TROPOSPHERE. THE MERIDIONAL TRANSPORT OF ATMOSPHERIC QUANTITIES AT THIS LEVEL CAN BE ACCOMPLISHED BY EITHER MERIDIONAL CELLS OR BY QUASI-HORIZONTAL, LARGE-SCALE

EDDY PROCESSES. THE UNCERTAINTY ABOUT TRANSPORT MECHANISMS CENTERS AROUND THE RELATIVE IMPORTANCE OF THESE TWO MECHANISMS.

NUCLEAR BOMB EXPLOSIONS AND VOLCANIC ERUPTIONS ON THE EARTH'S SURFACE AND IN THE TROPOSPHERE HAS RESULTED IN THE DEPOSITION OF A SIGNIFICANT AMOUNT OF RADIOACTIVE MATERIAL AND PARTICULATE MATTER INTO THE STRATOSPHERE WHICH HAS REMAINED THERE WHILE SPREADING QUASI-HORIZONTALLY UNTIL IT IS TRANSPORTED DOWN AND THROUGH THE TROPOPAUSE. ONCE IN THE TROPOSPHERE IT CAN REACH THE EARTH'S SURFACE RELATIVELY QUICKLY, JUST AS MATERIAL WHICH WAS ORIGINALLY DEPOSITED IN THE TROPOSPHERE. OF IMPORTANCE TO THE POLLUTION IN THE STRATOSPHERE FROM SUPERSONIC TRANSPORTS ARE THE QUESTIONS OF HOW LONG THE MATERIAL CAN BE EXPECTED TO REMAIN IN THE STRATOSPHERE AND WHETHER ITS TRANSPORT INTO THE TROPOSPHERE, AFTER INJECTION AT SOME POINT IN THE STRATOSPHERE, SHOWS ANY PREFERENTIAL VARIATION WITH LATITUDE AND SEASON. THESE QUESTIONS ARE FAR FROM ANSWERED, BUT FROM OBSERVATIONAL STUDIES OF THE VERTICAL DISTRIBUTION OF RADIOACTIVE MATERIAL, VOLCANIC DEBRIS AND OZONE CONCENTRATION HAVE TENDED TO SHOW LARGE DEPOSITION RATES IN THE LATE SPRING IN THE MIDDLE LATITUDES, MORE ESPECIALLY IN THE NORTHERN HEMISPHERE.

GENERALLY, ONE CAN TENTATIVELY CONCLUDE THAT SUPERSONIC TRANSPORT POLLUTION MAY BE TRANSPORTED FROM MIDDLE-LATITUDE OR LOW-LATITUDE UPPER STRATOSPHERE TO THE HIGH-LATITUDE LOWER STRATOSPHERE DURING THE WINTER MONTHS. SUCH TRANSPORT WOULD BE MUCH WEAKER DURING THE REST OF THE YEAR. THIS TRANSPORT COULD BE ACCOMPLISHED BY EITHER A MERIDIONAL CIRCULATION OR EDDY PROCESS. LARGE AMOUNTS OF OZONE SEEM TO APPEAR IN THE HIGH-LATITUDE LOWER STRATOSPHERE AT THE SAME TIME AS STRATOSPHERIC WARMINGS, INDICATING A POSSIBLE RELATIONSHIP BETWEEN LARGE-SCALE DISTURBANCES, OZONE TRANSPORT, AND FUTURE POLLUTION TRANSPORT FROM THE SST. STUDIES FROM RADIOACTIVE TRACER OBSERVATIONS TAKEN BY U-2 AIRCRAFT TEND TO CONFIRM A MECHANISM OF EDDY TRANSFER

RATHER THAN A LARGE-SCALE MERIDIONAL CIRCULATION.

MUCH WORK STILL NEEDS TO BE DONE ON THE DISTRIBUTION OF WATER VAPOR IN THE STRATOSPHERE. THE RESULTS WHICH ARE PRESENTLY AVAILABLE FOR WATER VAPOR CONTENT IN THE LOWER STRATOSPHERE GIVE AN AMBIGUOUS PICTURE OF EXACTLY WHAT DOES HAVE TO BE EXPLAINED BY ATMOSPHERIC TRANSPORT PROCESSES. AT PRESENT, THERE IS NO EVIDENCE THAT THE MOISTURE STRUCTURE OF THE STRATOSPHERIC REGION IS SIGNIFICANTLY MORE VARIABLE THAN THAT OBSERVED IN THE TROPOSPHERE. CLOUDS (NACREOUS AND MOTHER-OF-PEARL) HAVE BEEN OBSERVED IN THE UPPER REGIONS OF THE LOWER STRATOSPHERE, APPARENTLY IN RELATION TO STRONG WAVE MOTIONS (INTERNAL GRAVITY WAVES) GENERATED BY OROGRAPHIC EFFECTS IN THE TROPOSPHERE. THESE OBSERVATIONS INDICATE SATURATION AND WITH A KNOWLEDGE OF THE TEMPERATURE AND PRESSURES PROVIDE EVIDENCE OF A WIDE RANGE IN RELATIVE HUMIDITY FROM A FEW PERCENT MEASURED IMMEDIATELY ABOVE THE TROPOPAUSE TO THE SATURATION OF THESE CLOUD REGIONS.

III. THE UPPER STRATOSPHERE

LITTLE WORK HAS BEEN DONE TO DATE ON THE POSSIBILITY OF THE TRANSPORT OF POLLUTION IN THE STRATOSPHERE UP INTO THE MESOSPHERE. THE OUTSTANDING PROBLEM OF TRANSPORT WITH RESPECT TO THE MESOSPHERE IS THAT POSED BY THE HEAT BUDGET. THUS, WE HAVE INCLUDED A SHORT SECTION IN THIS BIBLIOGRAPHY CONCERNING THIS PROBLEM. IN THE MESOSPHERE THERE ARE MANY MORE POSSIBLE PHOTOCHEMICAL REACTIONS TO BE CONSIDERED THAN IN THE STRATOSPHERE. THERE MAY WELL BE REACTIONS INVOLVING VARIOUS OXIDES OF NITROGEN, AND IT IS CLEAR FROM THE PRESENCE OF HYDROXYL BANDS IN THE SPECTRUM OF AIRGLOW THAT HYDROGEN IS ALSO PRESENT AND CHEMICALLY ACTIVE. THE SPECTRUM OF THE AIRGLOW ALSO REVEALS THE PRESENCE OF SODIUM IN THE MESOSPHERE.

ALTHOUGH AT THIS TIME THE LOWER STRATOSPHERE IS MARKED BY AN ABSENCE OF DIRECT CONSTANT SOURCES OF PARTICULATE CONTAMINATION, IT DOES HAVE AN INFLUX

OF PARTICULATE MATTER THROUGH SEDIMENTATION OF METEOROID MATERIAL FROM THE HIGHER ATMOSPHERE AND CONVECTIVE INJECTION ACROSS THE LOWER BOUNDARY FROM THE TROPOSPHERE. THE LATTER PROCESS HAS A FAR GREATER POTENTIAL OWING TO GROSS CONTAMINATION WHICH EXISTS IN CERTAIN TROPOSPHERIC REGIONS, BUT IS LIMITED IN EFFICIENCY BECAUSE OF THE CONSIDERABLE STABILITY OF THE LOWER STRATOSPHERIC TEMPERATURE STRUCTURE. THUS, IN THIS MANNER, THIS VARIABLE PARTICULATE CONCENTRATION IS HIGHLY DEPENDENT UPON SUDDEN STRATOSPHERIC TEMPERATURE CHANGES. A SEPARATE SECTION IN THIS BIBLIOGRAPHY IS DEVOTED TO THE TEMPERATURE AND HEATING OF THE LOWER STRATOSPHERE.

IV: SUPERSONIC ENVIRONMENT PROTECTION ACT

IN MAY 1971 A BILL WAS INTRODUCED IN THE UNITED STATES SENATE BY SENATOR GAYLORD NELSON TO AMEND THE FEDERAL AVIATION ACT OF 1958 IN ORDER TO:

1) PROVIDE FOR INDEPENDENT SCIENTIFIC STUDIES OF THE IMPACT OF CIVIL SUPERSONIC AIRCRAFT UPON THE ENVIRONMENT,

2) PROHIBIT THE OPERATION OF ANY CIVIL SUPERSONIC AIRCRAFT WITHIN THE TERRITORIAL JURISDICTION OF THE UNITED STATES UNTIL AND UNLESS THE CONGRESS DETERMINES FROM INDEPENDENT SCIENTIFIC STUDIES THAT THE OPERATION OF CIVIL SUPERSONIC AIRCRAFT WILL NOT HAVE IMMEDIATE OR LONG-RANGE ADVERSE EFFECTS UPON THE ENVIRONMENT.

IN THE BIBLIOGRAPHY THIS BILL (S. 1881) IS QUOTED IN FULL.

V. ACKNOWLEDGEMENTS

THE AUTHOR WISHES TO THANK JOHN BENSON FOR WRITING THE COMPUTER PROGRAM, AND DEBBIE BERNDT, PHILIP DEUSTCH, MARCY LIND, KATHY PLUFF, AND ESTHER WEIGAND FOR KEYPUNCHING THE ENTRIES.

AUGUST 1971

ALEKSEJEV, P.P.

ROCKET INVESTIGATION OF THE UPPER ATMOSPHERE
METEOROL. I GIDROL. (1957) VOL. 8, PAGES 3-13.

ANDERSON, A.D.

A WIND-MEASURING SYSTEM FOR THE TACTICAL PREDICTION OF FALLOUT
NAVAL RESEARCH REVIEW (1960) PAGES 7-14.

APPLEMAN, H.S.

EFFECT OF SUPERSONIC AIRCRAFT ON CIRRUS FORMATION AND CLIMATE
AMS/AIAA CONFERENCE ON AFROSPACE METEOROLOGY (1966) PAPER NO. 66-369.

BARR, N.M., G.H. POMER, AND A.D. REYNOLDS

AIR QUALITY AS AFFECTED BY AIR TRANSPORTATION INCLUDING SST
REVISION C DOCUMENT NO. D6A 11867-1 (1970) BOEING COMPANY, SEATTLE
WASHINGTON.

BARRETT, E.W., R.F. PUESCHEL, H.K. WEICKMANN, AND P.M. KUHN

INADVERTENT MODIFICATION OF WEATHER AND CLIMATE BY ATMOSPHERIC POLLUTANTS
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION RESEARCH LABORATORIES (1970)
ESSA TECHNICAL REPORT ERL 185-APCL 15, 103 PAGES.

BATES, D.R.

COMPOSITION AND STRUCTURE OF THE ATMOSPHERE
THE EARTH AND ITS ATMOSPHERE (1957) BASIC BOOKS, NEW YORK, PAGES 97-112.

BATES, D.R.

THE PHYSICS OF THE UPPER ATMOSPHERE

THE EARTH AS A PLANET (1954) (G.P. KUIPER, EDITOR) UNIVERSITY OF CHICAGO PRESS, CHICAGO, ILLINOIS, PAGES 576-643.

BELLAMY, J.E.

REQUIREMENTS FOR HIGH-ALTITUDE METEOROLOGY

NAVIGATION 8 (1961) PAGES 1965-1975.

BERNING, W.W.

TRAJECTORY MEASUREMENTS FOR ROCKETS USED IN UPPER ATMOSPHERE RESEARCH

ROCKET EXPLORATION OF THE UPPER ATMOSPHERE (R.L.F. BOYD AND M.J. SEATON, EDITORS)(1954) PERGAMON PRESS, OXFORD, PAGES 65-72.

BICKERT, A., K. LABITZKE-BEHR, K. PETZOLDT, R. SCHERHAG, AND G. WARNECKE

TAGLICHE HOHENKARTEN DER 50 MBAR-FLACHE FUR DAS JAHR 1960 TEIL I-IV

METEOROL. ABHANDL. INST. METEOROL. GEOPHYS. FREIEN UNIV. BERLIN (1961-1962) VOL. 15, 100 PAGES.

BORDEN, T.R., JR., W.S. HERING, H.S. MUENCH, AND G. OHRING

CONTRIBUTIONS TO STRATOSPHERIC METEOROLOGY VOLUME II

U.S. AIR FORCE (1960) CAMBRIDGE RESEARCH LABORATORIES, BEDFORD, MASSACHUSETTS, GEOPHYSICS RESEARCH DIRECTORATE, G.R.B. NOTES NO. 1, (OTS ORDER NO. PR 154898), 206 PAGES.

BORK, I., K. LABITZKE-BEHR, Z. PETKOSEK, K. PETZOLDT, R. SCHERHAG,
AND G. WARNECKE

100 MBAR-KARTEN DER BERLINER WETTER KARTE, HERAUSGEG

INSTITUT FÜR METEOROLOGIE UND GEOPHYSIK DER FREIEN UNIVERSITÄT BERLIN
(1961).

BORK, I., K. LABITZKE-BEHR, Z. PETKOSEK, K. PETZOLDT,
R. SCHERHAG, AND G. WARNECKE

ERGEBNISSE DER AUFSTIEGE D. RADIOSENDENSTATION BERLIN-TEMPELHOF D.

INSTITUT FÜR METEOROLOGIE UND GEOPHYSIK DER FREIEN UNIVERSITÄT BERLIN
(1961) VOL. 11, PAGE 3.

BORK, I., K. LABITZKE-BEHR, Z. PETKOSEK, K. PETZOLDT, R. SCHERHAG,
AND G. WARNECKE

PRELIMINARY DAILY NORTHERN HEMISPHERE 10-MILLIBAR SYNOPTIC WEATHER
MAPS OF THE YEAR 1961 PART I-IV

METEOROL. ABHANDL., INST. METEOROL. GEOPHYS., FREIEN UNIV., BERLIN
(1962) VOL. 20, 100 PAGES.

ROYD, R.L.F., AND M.J. SEATON (EDITORS)

ROCKET EXPLORATION OF THE UPPER ATMOSPHERE

PERGAMON PRESS (1954) OXFORD, 307 PAGES.

CHAPMAN, S.

PHOTOCHEMICAL PROCESSES IN THE UPPER ATMOSPHERE AND RESULTANT
COMPOSITION

COMPENDIUM OF METEOROLOGY (1951) (T.F. MALONE, EDITOR) AMERICAN
METEOROLOGICAL SOCIETY, ROSTON, MASSACHUSETTS, PAGES 262-274.

CHAPMAN, S., AND T.G. COWLING

THE MATHEMATICAL THEORY OF NONUNIFORM GASES

CAMBRIDGE UNIVERSITY PRESS (1952) LONDON AND NEW YORK, 150 PAGES.

(CHEMISTRY)

CHEMICAL REACTIONS IN THE LOWER AND UPPER ATMOSPHERE

WILEY (INTERSCIENCE) (1961) NEW YORK.

(CONGRESSIONAL HEARING)

AIR POLLUTION CREATED BY AIRCRAFT JET ENGINE EMISSIONS

JOINT HEARING BEFORE THE COMMITTEE ON COMMERCE AND THE SUBCOMMITTEE
ON AIR AND WATER POLLUTION OF THE COMMITTEE ON PUBLIC WORKS,
U.S. SENATE

U.S. GOVERNMENT PRINTING OFFICE (1970) FEBRUARY 4, SERIAL NO. 91-85,
WASHINGTON, D.C., 36 PAGES.

COSPAR

ON THE PHYSICS OF THE NEUTRAL UPPER ATMOSPHERE

COSPAR INTERNATIONAL REFERENCE ATMOSPHERE (1970) GODDARD SPACE FLIGHT
CENTER, GREENBELT, MARYLAND, PROGRESS REPORT, 106 PAGES.

CRAIG, R.A.

THE UPPER ATMOSPHERE: METEOROLOGY AND PHYSICS

ACADEMIC PRESS (1965) NEW YORK AND LONDON, 509 PAGES.

ELIASSEN, A., AND E. KLEINSCHMIDT

DYNAMIC METEOROLOGY

HANDBUCH DER PHYSIK (1957) (J. BARTELS, EDITOR) SPRINGER, BERLIN,
VOL. 48, PAGES 1-154.

FINGER, F.G., AND R.M. MCINTURFF

METEOROLOGY AND THE SUPERSONIC TRANSPORT

SCIENCE (1970) VOL. 167, PAGES 16-25.

FRIEDMAN, H.

THE SUN'S IONIZING RADIATIONS

PHYSICS OF THE UPPER ATMOSPHERE (1960) (J.A. RATCLIFFE, EDITOR)
ACADEMIC PRESS, PAGES 133-218.

GOODY, R.M.

THE PHYSICS OF THE STRATOSPHERE

CAMBRIDGE UNIVERSITY PRESS (1954) LONDON AND NEW YORK, 187 PAGES.

GRAMS, G., AND G. FUJICCO

STRATOSPHERIC AEROSOL LAYER DURING 1964 AND 1965

JOURNAL OF GEOPHYSICAL RESEARCH (1967) VOL. 72, PAGES 3523-3541.

GREENFIELD, S.M.

SYNOPTIC WEATHER OBSERVATIONS FROM EXTREME ALTITUDES

RAND CORPORATION (1956) VOL. P-761, PAGE 12.

GROVES, G.V.

HIGH ATMOSPHERE WIND STUDIES BY SKYLARK ROCKET CLOUD RELEASES
IN FIRST INTERNATIONAL SYMPOSIUM ON ROCKET AND SATELLITE
METEOROLOGY (H. WEXLER AND J.E. CASKEY, JR., EDITORS) (1963)
PAGES 60-69, WILEY, NEW YORK.

HAGE, K.D.

PARTICLE FALLOUT AND DISPERSION BELOW 30 KM IN THE ATMOSPHERE
SANDIA REPORT SC-DC-64-1463 (1964).

HANSEN, C.F.

SOME CHARACTERISTICS OF THE UPPER ATMOSPHERE PERTAINING TO
HYPERVELOCITY FLIGHT
JET PROPULSION (1957) VOL. 27, PAGES 1151-1158.

HARE, F.K.

THE STRATOSPHERE
GEOGRAPHICAL REVIEW (1962) VOL. 52, PAGES 525-547.

HARRIS, I., AND R. JASTROW

AN INTERIM ATMOSPHERE DERIVED FROM ROCKET AND SATELLITE DATA
PLANETARY AND SPACE SCIENCE (1959) VOL. 1, PAGES 20-26.

HARRISON, H.

STRATOSPHERIC OZONE WITH ADDED WATER VAPOR: INFLUENCE OF HIGH ALTITUDE
AIRCRAFT
SCIENCE (1970) VOL. 170, PAGE 734.

HULBERT, E.O.

PHYSICS OF THE UPPER ATMOSPHERE

METEOROLOGY MONOGRAPHS (1957) VOL. 3, PAGES 160-181.

HUNT, B.G., AND S. MANABE

EXPERIMENTS WITH A STRATOSPHERIC GENERAL CIRCULATION MODEL: II. LARGE SCALE DIFFUSION OF TRACERS IN THE STRATOSPHERE

MONTHLY WEATHER REVIEW (1968) VOL. 96, PAGES 503-539

HUSHKE, R.E. (EDITOR)

GLOSSARY OF METEOROLOGY

AMERICAN METEOROLOGICAL SOCIETY (1959) BOSTON, MASSACHUSETTS.

JONES, R.F., R.M. MCINTURFF, AND S. TEWELES

METEOROLOGICAL PROBLEMS IN THE DESIGN AND OPERATION OF SUPERSONIC AIRCRAFT

WORLD METEOROLOGICAL ORGANIZATION (1967) GENEVA, SWITZERLAND.

JUNGE, C.E.

AIR CHEMISTRY AND RADIOACTIVITY

ACADEMIC PRESS (1963) NEW YORK AND LONDON, 382 PAGES.

KAROL, I.L.

NUMERICAL MODEL OF THE GLOBAL TRANSPORT OF RADIOACTIVE TRACERS FROM THE INSTANTANEOUS SOURCES IN THE LOWER STRATOSPHERE

JOURNAL OF GEOPHYSICAL RESEARCH (1970) VOL. 75, PAGES 3589-3603.

KELLOGG, W.W.

REVIEW OF IGY UPPER AIR RESULTS

RAND CORPORATION (1959) SANTA MONICA, CALIFORNIA, VOL. P-1717, 21 PAGES.

KELLOGG, W.W.

TEMPERATURES AND MOTIONS OF THE UPPER ATMOSPHERE

PHYSICS AND MEDICINE OF THE UPPER ATMOSPHERE, ALBUQUERQUE (1952)
PAGES 54-74.

KUIPER, G.P., EDITOR

THE EARTH AS A PLANET

UNIVERSITY OF CHICAGO PRESS (1954) CHICAGO, ILLINOIS, 751 PAGES.

LEIGHTON, P.A.

PHOTOCHEMISTRY OF AIR POLLUTION

ACADEMIC PRESS (1961) NEW YORK.

LIST, R.J., AND K. TELEGADAS

USING RADIOACTIVE TRACERS TO DEVELOP A MODEL OF THE CIRCULATION OF THE
STRATOSPHERE

JOURNAL OF THE ATMOSPHERIC SCIENCES (1969) VOL. 26, PAGES 1128-1136.

MALONE, T.F. (EDITOR)

COMPENDIUM OF METEOROLOGY

AMERICAN METEOROLOGICAL SOCIETY (1951) BOSTON, MASSACHUSETTS.

MASSEY, H.S.W., AND R.L.F. BOYD

THE UPPER ATMOSPHERE

PHILOSOPHICAL LIBRARY, NEW YORK (1959).

MICHIGAN UNIVERSITY, UPPER ATMOSPHERE RESEARCH PROJECT

THE MEASUREMENT OF DIFFUSIVE SEPARATION IN THE UPPER ATMOSPHERE

ROCKET EXPLORATION OF THE UPPER ATMOSPHERE (1954) (R.L.F. BOYD AND
M.J. SEATON, EDITORS) PERGAMON PRESS, OXFORD, PAGES 143-156.

MITRA, S.K.

THE UPPER ATMOSPHERE, SECOND EDITION

ASIATIC SOCIETY (1952) CALCUTTA, 713 PAGES.

MOLANDER, ROGER C.

SST STRATOSPHERIC POLLUTION

IDA NOTE N-741(R) (1970).

NEWELL, R.E.

TRANSFER THROUGH THE TROPOPAUSE AND WITHIN THE STRATOSPHERE

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1963) VOL. 89,
PAGES 167-204.

NICOLET, M.

THE PROPERTIES AND CONSTITUTION OF THE UPPER ATMOSPHERE

PHYSICS OF THE UPPER ATMOSPHERE (1960) (J.A. RATCLIFFE, EDITOR)
ACADEMIC PRESS, NEW YORK, PAGES 17-71.

ORT, A.H.

DIRECT MEASUREMENT OF THE MERIDIONAL CIRCULATION IN THE STRATOSPHERE
DURING THE IGY. PLANETARY CIRCULATIONS

PROJECT, DEPT. OF METEOROLOGY, MIT (1962) CAMBRIDGE, MASSACHUSETTS,
SCIENCE REPORT 6.

PANOFSKY, H.A., L. KRAWITZ, AND P.R. JULIAN

A STUDY AND EVALUATION OF RELATIONS BETWEEN TROPOSPHERIC AND
STRATOSPHERIC FLOW

PENNSYLVANIA STATE UNIVERSITY (1958) FINAL REPORT N189 (188) 34785A.

PASQUILL, F.

ATMOSPHERIC DIFFUSION. THE DISPERSION OF WINDBORNE MATERIAL FROM
INDUSTRIAL AND OTHER SOURCES

VAN NOSTRAND (1962) LONDON AND NEW YORK.

PAVLOVSKAYA, A.A.

INTERSEASONAL VARIATIONS OF ATMOSPHERIC CIRCULATION IN THE UPPER
TROPOSPHERE AND LOWER STRATOSPHERE

TRUDY CENTRAL FESTG. INST. (1961) MOSCOW, NO. 104, PAGES 54-88.

RATCLIFFE, J.A., EDITOR

PHYSICS OF THE UPPER ATMOSPHERE

ACADEMIC PRESS (1960) NEW YORK, 586 PAGES.

REITER, E.R.

ATMOSPHERIC TRANSPORT PROCESSES, PART I: ENERGY TRANSFERS AND TRANSFORMATIONS

NATIONAL TECHNICAL INFORMATION SERVICE (1969) REPORT NO. TID-24868,
U.S. DEPARTMENT OF COMMERCE, SPRINGFIELD, VIRGINIA.

REITER, E.R.

ATMOSPHERIC TRANSPORT PROCESSES, PART II: CHEMICAL TRACERS

NATIONAL TECHNICAL INFORMATION SERVICE (1971) REPORT NO. TID-25314,
U.S. DEPARTMENT OF COMMERCE, SPRINGFIELD, VIRGINIA, 388 PAGES.

REPORT OF THE STUDY OF CRITICAL ENVIRONMENTAL PROBLEMS (SCEP)

MAN'S IMPACT ON THE GLOBAL ENVIRONMENT: ASSESSMENT AND RECOMMENDATIONS
FOR ACTION

THE M.I.T. PRESS (1970) CAMBRIDGE, MASSACHUSETTS.

SINGER, S.F.

RESEARCH IN THE UPPER ATMOSPHERE WITH HIGH ALTITUDE SOUNDING
ROCKETS

JOURNAL OF ATMOSPHERIC AND TERRESTRIAL PHYSICS (1956) VOL. 4, PAGES
878-912.

SINGER, S.F.

RESEARCH IN THE UPPER ATMOSPHERE WITH HIGH ALTITUDE SOUNDING ROCKETS

VISTAS ASTRON. (1955) VOL. 2, PAGES 878-912.

SPITZER, L., JR.

THE TERRESTRIAL ATMOSPHERE ABOVE 30 KM

THE ATMOSPHERES OF THE EARTH AND PLANETS (1952) (G.P. KUIPER, EDITOR),
UNIV. OF CHICAGO PRESS, CHICAGO, ILLINOIS, PAGES 326-351.

SURTEES, W.J.

AN OUTLINE OF SOME CHARACTERISTICS OF THE UPPER ATMOSPHERE

CANADIAN ARMAMENT RESEARCH AND DEVELOPMENT ESTABLISHMENT, (1964).

VAN VALIN, C.C.

EFFECTS ON THE STRATOSPHERE OF SST OPERATION

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (1971) MAY,
NOAA TECHNICAL REPORT ERL 208-APCL 21, 41 PAGES.

WEBB, W.L.

SCALE OF STRATOSPHERIC DETAIL STRUCTURE

SPACE RESEARCH V (1965) (D.G. KING-HELE, P. MULLER, AND G. RIGHINI,
EDITORS), NORTH-HOLLAND PUBLICATIONS, AMSTERDAM, PAGES 997-1007.

WEBB, W.L.

STRUCTURE OF THE STRATOSPHERE AND MESOSPHERE

ACADEMIC PRESS (1966) NEW YORK AND LONDON.

WEGE, K., H. LEESE, H.U. GROENING AND G. HOFFMAN

MEAN SEASONAL CONDITIONS OF THE ATMOSPHERE AT ALTITUDES OF 20 TO 30 KM
AND CROSS SECTIONS ALONG SELECTED MERIDIANS IN THE NORTHERN HEMISPHERE

METEOR. ABHANDLUNGEN, UNIV. BERLIN (1958) VOL. 6, NO. 4, PAGES 1-28.

WEXLER, H.

A METEOROLOGIST LOOKS AT THE UPPER ATMOSPHERE

ATMOSPHERIC EXPLORATIONS (H.G. HOUGHTON, EDITOR) THE TECHNOLOGY PRESS
(1958) CAMBRIDGE, MASSACHUSETTES, AND WILEY, NEW YORK, PAGES 79-100.

ALLINGTON, K., B.W. BOVILL, AND F.K. HARE

MIDWINTER OZONE VARIATIONS AND STRATOSPHERIC FLOW OVER CANADA
TELLUS (1960) VOL. 12, PAGES 266-273.

ANDERSON, K.A.

THIN ATMOSPHERIC LAYERS OF RADIOACTIVE DEBRIS DURING SEPTEMBER 1961
REPORT UCB-62-2 (1962) DEPARTMENT OF PHYSICS, UNIVERSITY OF CALIFORNIA,
BERKLEY, CALIFORNIA.

APPLEMAN, H.S.

DERIVATION OF JET-AIRCRAFT CONTRAIL-FORMATION CURVES
AIR WEATHER SERVICE TECHNICAL REPORT 105-145 (1957) U.S. AIR FORCE.

APPLEMAN, H.S.

EFFECT OF SUPERSONIC AIRCRAFT ON CIRRUS FORMATION AND CLIMATE
AMS/AIAA CONFERENCE ON AEROSPACE METEOROLOGY (1966) PAPER NO. 66-369.

APPLETON, H.

THE FORMATION OF EXHAUST CONDENSATION TRAILS BY JET AIRCRAFT
BULLETIN OF THE AMERICAN METEOROLOGICAL SOCIETY (1953) VOL. 34, PAGE 14.

AYYAR, AND P.S. HARIHARA

HEMISPHERICAL TRANSPORT OF VOLCANIC DUST INFERRED FROM DIFFUSE RADIATION
MEASUREMENTS

INDIAN JOURNAL OF METEOROLOGY AND GEOPHYSICS (1966) VOL. 17, PAGES
613-616.

BAKER, K.D., AND B.W. CURRIE

AN OBSERVATION OF NOCTILUCENT CLOUDS IN WESTERN CANADA
CANADIAN JOURNAL OF PHYSICS (1952) VOL.39, PAGE 1515.

BANNON, J.K., R. FRITH, AND H.C. SHELLARD

HUMIDITY OF THE UPPER TROPOSPHERE AND LOWER STRATOSPHERE OVER SOUTHERN
ENGLAND
GEOPHYSICAL MEMOIRS (METEOROLOGICAL OFFICE) (1952) VOL. 11, NO. 3.

BARCLAY, F.R., M.J.W. ELLIOTT, P. GOLDSMITH, AND J.V. JELLEY

A DIRECT MEASUREMENT OF THE HUMIDITY IN THE STRATOSPHERE USING A COOLED-
VAPOR TRAP
QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1960) VOL. 86,
PAGES 259-264.

BARR, N.M., G.H. POMER, AND A.D. REYNOLDS

AIR QUALITY AS AFFECTED BY AIR TRANSPORTATION INCLUDING SST
REVISION C DOCUMENT NO. D6A 11867-1 (1970) BOEING COMPANY, SEATTLE
WASHINGTON.

BARRETT, E.W., L.R. HERNDON, JR., AND H.J. CARTER

A PRELIMINARY NOTE ON THE MEASUREMENT OF WATER VAPOR CONTENT IN THE MIDDLE
STRATOSPHERE
JOURNAL OF METEOROLOGY (1949) VOL. 6, PAGES 367-368.

BARRETT, E.W., L.R. HERNDON, JR., AND H.J. CARTER

SOME MEASUREMENTS OF THE DISTRIBUTION OF WATER VAPOR IN THE STRATOSPHERE
TELLUS (1950) VOL. 2, PAGES 302-311.

BARRETT, E.W., R.F. PUESCHEL, H.K. WEICKMANN, AND P.M. KUHN

INADVERTENT MODIFICATION OF WEATHER AND CLIMATE BY ATMOSPHERIC POLLUTANTS
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION RESEARCH LABORATORIES (1970)
ESSA TECHNICAL REPORT ERL 185-APCL 15, 103 PAGES.

BARTH, C.A.

NITROGEN AND OXYGEN ATOMIC REACTIONS IN THE CHEMOSPHERE
JET PROPULSION LABORATORIES (1961) TR 32-63, 14.4.

BATES, D.R.

SOME REACTIONS OCCURRING IN THE EARTH'S UPPER ATMOSPHERE
ANNALES DE GEOPHYSIQUE (1952) VOL. 8, PAGES 194-204.

RATES, D.R., AND M. NICOLET

THE PHOTOCHEMISTRY OF ATMOSPHERIC WATER VAPOUR
JOURNAL OF GEOPHYSICAL RESEARCH (1950) VOL. 55, PAGES 301-327.

RATES, D.R., AND A.E. WITHERSPOON

THE PHOTO-CHEMISTRY OF SOME MINOR CONSTITUENTS OF THE EARTH'S
ATMOSPHERE: CARBON DIOXIDE, CARBON, METHANE, NITROUS OXIDE
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY (1952) VOL. 112,
PAGES 101-124.

BENSON, S.W., AND A.E. AXWORTHY, JR.

MECHANISM OF THE GAS PHASE, THERMAL DECOMPOSITION OF OZONE
JOURNAL OF CHEMICAL PHYSICS (1957) VOL. 26, PAGES 1718-1726.

BERNARD, R.

THE IDENTIFICATION AND THE ORIGIN OF ATMOSPHERIC SODIUM
ASTROPHYSICAL JOURNAL (1939) VOL. 89, PAGES 133-135.

BIGG, E.K.

THE DETECTION OF ATMOSPHERIC DUST AND TEMPERATURE INVERSIONS BY
TWILIGHT SCATTERING
JOURNAL OF METEOROLOGY (1956) VOL. 13, PAGE 262.

BLAMONT, J.E., AND T.M. DONAHUE

THE DAYGLOW OF THE SODIUM D LINES
JOURNAL OF GEOPHYSICAL RESEARCH (1961) VOL. 66, PAGES 1407-1423.

BLEICHRODT, J.F., J. BLOK, AND R.H. DEKKER

ON THE SPRING MAXIMUM OF RADIOACTIVE FALLOUT FROM NUCLEAR TEST
EXPLOSIONS
JOURNAL OF GEOPHYSICAL RESEARCH (1961) VOL. 66, PAGES 135-141.

BLIFFORD, I.H., JR., AND L.D. RINGER

THE SIZE AND NUMBER DISTRIBUTION OF AEROSOLS IN THE CONTINENTAL
TROPOSPHERE
JOURNAL OF ATMOSPHERIC SCIENCES (1969) VOL. 26, PAGES 716-726.

ROVILLE, B.W., AND F.K. HARE

TOTAL OZONE AND PERTURBATIONS IN THE MIDDLE STRATOSPHERE

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1961) VOL. 87,
PAGES 490-501.

ROWEN, I.G., AND V.H. REGENER

ON THE AUTOMATIC CHEMICAL DETERMINATION OF ATMOSPHERIC OZONE

JOURNAL OF GEOPHYSICAL RESEARCH (1951) VOL. 56, PAGES 307-324.

BRASEFIELD, C.J.

MEASUREMENT OF ATMOSPHERIC HUMIDITY UP TO 35 KM

JOURNAL OF METEOROLOGY, (1954) VOL. 11, PAGES 412-416.

BREILAND, J.G.

COMPARISON OF THE VERTICAL DISTRIBUTION OF THERMAL STABILITY IN THE
LOWER STRATOSPHERE WITH THE VERTICAL DISTRIBUTION OF ATMOSPHERIC OZONE

JOURNAL OF THE ATMOSPHERIC SCIENCES (1967) VOL. 24, PAGES 569-576.

BREWER, A.W.

EVIDENCE FOR A WORLD CIRCULATION PROVIDED BY THE MEASUREMENTS OF HELIUM
AND WATER VAPOUR DISTRIBUTION IN THE STRATOSPHERE

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1949) VOL. 75,
PAGES 351-363.

BRICARD, J.

ACTION OF RADIOACTIVITY AND OF POLLUTION UPON PARAMETERS OF ATMOSPHERIC
ELECTRICITY

PROBLEMS OF ATMOSPHERIC AND SPACE ELECTRICITY (1965) AMSTERDAM,
ELSEVIER PUBLISHING CO., PAGE 82.

BROWN, F., P. GOLDSMITH; H.F. GREEN, A. HOLT, AND A.G. PARHAM

MEASUREMENTS OF THE WATER VAPOUR, TRITIUM AND CARBON-14 CONTENT OF THE MIDDLE STRATOSPHERE OVER SOUTHERN ENGLAND

TELLUS (1961) VOL. 13; PAGES 407-416.

BROOKS, D.L.

THE DISTRIBUTION OF CARBON DIOXIDE COOLING IN THE LOWER STRATOSPHERE

JOURNAL OF METEOROLOGY (1958) VOL. 15, PAGES 210-219.

RUPALINI, J.J., AND A.P. ALTSHULLER

SYNERGISTIC EFFECTS IN THE PHOTOOXIDATION OF MIXED HYDROCARBONS

ENVIRONMENTAL SCIENCE AND TECHNOLOGY (1967) VOL. 1, PAGES 133-138.

RULL, G.A., AND D.G. JAMES

DUST IN THE STRATOSPHERE OVER WESTERN BRITAIN ON APRIL 3 AND 4, 1956

METEOROLOGICAL MAGAZINE (1956) VOL. 85, PAGE 293.

BULLARD, F.M.

VOLCANOES IN HISTORY, IN THEORY, IN ERUPTION

UNIVERSITY OF TEXAS PRESS (1962) AUSTIN.

BURCH, D.E., D. GRYVNAK, E.B. SINGLETON, W.L. FRANCE, AND
D. WILLIAMS

INFRARED ABSORPTION BY CARBON DIOXIDE, WATER VAPOR, AND MINOR
ATMOSPHERIC CONSTITUENTS

AIR FORCE CAMBRIDGE RESEARCH LABORATORIES (1962) RESEARCH REPORT
NO. 62-698, PAGES 1-316.

BURROUGHS, W.J., AND J.E. HARRIES

DIRECT METHOD OF MEASURING STRATOSPHERIC WATER VAPOR MIXING RATIOS
NATURE (1970) VOL. 227, PAGES 824-825.

BYRAM, E.T., T.A. CHUBB, AND H. FRIEDMAN

THE DISSOCIATION OF OXYGEN AT HIGH ALTITUDES
THRESHOLD OF SPACE (1957) (M. ZELIKOFF, EDITOR) PERGAMON PRESS,
NEW YORK, PAGES 211-216.

BYRAM, E.T., T.A. CHUBB, AND H. FRIEDMAN

DISSOCIATION OF OXYGEN IN THE UPPER ATMOSPHERE
PHYSICAL REVIEW (1955) VOL. 98, PAGES 1594-1597.

BYRAM, E.T., T.A. CHUBB, AND H. FRIEDMAN

THE SOLAR X-RAY SPECTRUM AND THE DENSITY OF THE UPPER ATMOSPHERE
JOURNAL OF GEOPHYSICAL RESEARCH (1956) VOL. 61, PAGES 251-263.

BYRON-SCOTT, R.

A STRATOSPHERIC GENERAL CIRCULATION EXPERIMENT INCORPORATING DIABATIC
HEATING AND OZONE PHOTOCHEMISTRY
MCGILL UNIVERSITY (1967) ARCTIC METEOROLOGY RESEARCH GROUP, DEPARTMENT
OF METEOROLOGY, PUBLICATIONS IN METEOROLOGY NO. 87 (AFCL-67-0344),
367 PAGES.

CABANNES, J., J. DUFAY, AND J. GAUZIT

SODIUM IN THE UPPER ATMOSPHERE
ASTROPHYSICAL JOURNAL (1938) VOL. 88, PAGES 164-172.

CADLE, R.D., AND E.R. ALLEN

ATMOSPHERIC PHOTOCHEMISTRY

SCIENCE (1970) VOL. 167, PAGES 243-249.

CADLE, R.D., R. BLECK, J.P. SHEDLOVSKY, I.H. BLIFFORD,
J. ROSINSKI, AND A.L. LAZRUS

TRACE CONSTITUENTS IN THE VICINITY OF JET STREAMS

JOURNAL OF APPLIED METEOROLOGY (1969) VOL. 8, PAGES 348-356.

CADLE, R.D., AND J.W. POWERS

SOME ASPECTS OF ATMOSPHERIC CHEMICAL REACTIONS OF ATOMIC OXYGEN

TELLUS (1966) VOL. 18, PAGES 176-185.

CADLE, R.D., A.F. WARTBURG, E.R. FRANK, AND J.P. LODGE, JR.

PARTICLES IN VOLCANIC FUME

NATURE (1967) VOL. 213, PAGE 581.

CALLENDAR, G.S.

ON THE AMOUNT OF CARBON DIOXIDE IN THE ATMOSPHERE

TELLUS (1958) VOL. 10, PAGES 243-248.

CARROLL, P.K.

PREDISSOCIATION IN THE SCHUMANN-RUNGE BANDS OF OXYGEN

ASTROPHYSICAL JOURNAL (1959) VOL. 129, PAGES 794-800.

CHAGNON, C.W., AND C.E. JUNGE

THE VERTICAL DISTRIBUTION OF SUB-MICRON PARTICLES IN THE STRATOSPHERE
JOURNAL OF METEOROLOGY (1961) VOL. 18, PAGES 746-752.

CHAPMAN, S.

THE ABSORPTION AND DISSOCIATION OR IONIZING EFFECT OF MONOCHROMATIC
RADIATION IN AN ATMOSPHERE ON A ROTATING EARTH

PROCEDURES OF THE PHYSICAL SOCIETY (1931) VOL. 43, PAGES 26-45.

CHAPMAN, S.

THE ABSORPTION AND DISSOCIATIVE OR IONIZING EFFECT OF MONOCHROMATIC
RADIATION IN AN ATMOSPHERE ON A ROTATING EARTH, II: GRAZING INCIDENCE

PROCEDURES OF THE PHYSICAL SOCIETY (1931) VOL. 43, PAGES 483-501.

CHAPMAN, S.

THE ATMOSPHERIC HEIGHT DISTRIBUTION OF BAND-ABSORBED SOLAR RADIATION
PROCEDURES OF THE PHYSICAL SOCIETY (1939) VOL. 51, PAGES 93-109.

CHAPMAN, S.

ON OZONE AND ATOMIC OXYGEN IN THE UPPER ATMOSPHERE
PHILOSOPHICAL MAGAZINE (1930) VOL. 10, PAGES 369-383.

CHAPMAN, S.

PHOTOCHEMICAL PROCESSES IN THE UPPER ATMOSPHERE AND RESULTANT
COMPOSITION

COMPENDIUM OF METEOROLOGY (1951) (T.F. MALONE, EDITOR) AMERICAN
METEOROLOGICAL SOCIETY, BOSTON, MASSACHUSETTS, PAGES 262-274.

CHAPMAN, S.

A THEORY OF UPPER-ATMOSPHERIC OZONE

MEMOIRS OF THE ROYAL METEOROLOGICAL SOCIETY (1930) VOL.3, PAGES 103-125.

CHRISTIE, A.D.

THE GENESIS AND DISTRIBUTION OF NOCTILUCENT CLOUDS

JOURNAL OF THE ATMOSPHERIC SCIENCES (1969) VOL. 26, PAGES 168-176.

COBLENTZ, W.W., AND R. STAIR

DISTRIBUTION OF OZONE IN THE STRATOSPHERE-MEASUREMENTS OF 1939 AND 1940

JOURNAL OF RESEARCH OF THE NATIONAL BUREAU OF STANDARDS (1941) VOL. 26,
PAGES 161-174.

COLE, R.K. AND E.T. PIERCE

ELECTRIFICATION IN THE EARTH'S ATMOSPHERE FOR LATITUDES BETWEEN 0 AND
100 KILOMETERS

JOURNAL OF GEOPHYSICAL RESEARCH (1965) VOL. 70, PAGES 2735-2749.

CRACKETT, K.F., F.A. PANETH, AND E.J. WILSON

CHEMICAL COMPOSITION OF THE STRATOSPHERE AT 70 KM HEIGHT

NATURE (1949) VOL. 164, PAGES 128-129.

CRAIG, R.A.

THE OBSERVATION AND PHOTOCHEMISTRY OF ATMOSPHERIC OZONE AND THEIR
METEOROLOGICAL SIGNIFICANCE

METEOROLOGICAL MONOGRAPHS (1950) VOL. 1, PAGES 1-50.

CRAIG, R.A.

RADIATIVE TEMPERATURE CHANGES IN THE OZONE LAYER

COMPENDIUM OF METEOROLOGY (1950) (T.F. MALONE, EDITOR) AMERICAN METEOROLOGICAL SOCIETY, BOSTON, MASSACHUSETTS, PAGES 292-302.

CRAIG, R.A.

RELATIVE TEMPERATURE CHANGES IN THE OZONE LAYER

COMPENDIUM OF METEOROLOGY (1951) PAGES 292-302.

CRAIG, R.A., AND G. OHRING

THE TEMPERATURE DEPENDENCE OF OZONE RADIATIONAL HEATING IN THE VICINITY OF THE MESOPHAE

JOURNAL OF METEOROLOGY (1958) VOL. 15, PAGES 59-62.

CRONIN, J.F.

RECENT VOLCANISM AND THE STRATOSPHERE

SCIENCE (1971) VOL. 172, PAGES 847-849.

CURTIS, J.P.

ABSORPTION COEFFICIENTS OF AIR AND NITROGEN FOR THE EXTREME ULTRAVIOLET

PHYSICAL REVIEW (1954) VOL. 94, PAGES 908-910.

CURTIS, A.R., AND R.M. GOODY

THERMAL RADIATION IN THE UPPER ATMOSPHERE

PROCEEDINGS OF THE ROYAL SOCIETY (1956) VOL. A236, PAGES 193-206.

DAINTON, F.S., AND K.J. IVIN

THE PHOTOCHEMICAL FORMATION OF SULPHINIC ACIDS FROM SULPHUR DIOXIDE AND HYDROCARBONS

TRANSACTIONS OF THE FARADAY SOCIETY (1950) VOL. 46, PAGES 374-381.

DALGARNO, A., AND D. PARKINSON

PHOTOIONIZATION OF ATOMIC OXYGEN AND ATOMIC NITROGEN

JOURNAL OF ATMOSPHERIC AND TERRESTRIAL PHYSICS (1960) VOL. 18, PAGES 335-337.

DANIELSEN, E.F.

STRATOSPHERIC-TROPOSPHERIC EXCHANGE BASED ON RADIOACTIVITY, OZONE AND POTENTIAL VORTICITY

JOURNAL OF THE ATMOSPHERIC SCIENCES (1968) VOL. 25, PAGES 502-521.

DEIRMENDJIAN, D., AND E.H. VESTINE

SOME REMARKS ON THE NATURE AND ORIGIN OF NOCTILUCENT CLOUD PARTICLES
PLANETARY AND SPACE SCIENCE (1959) VOL. 1, PAGES 146-153.

DIAMOND, M., AND O.M. ESSENWANGER

STATISTICAL DATA ON ATMOSPHERIC DESIGN PROPERTIES TO 30 KM
ASTRONAUT. AEROSPACE ENGINEERING (1963) VOL. 1, PAGES 68-69.

DITCHBURN, R.W.

ABSORPTION OF ULTRAVIOLET RADIATION BY THE ATMOSPHERIC GASES
PROCEEDINGS OF THE ROYAL SOCIETY (1956) VOL. A236, PAGES 216-226.

DITCHBURN, R.W., J.E.S. BRADLEY, C.G. CANNON, AND G. MUNDBAY

ABSORPTION CROSS-SECTIONS FOR LYMAN ALPHA AND NEIGHBORING LINES

ROCKET EXPLORATION OF THE UPPER ATMOSPHERE (1960) (R.L.F. BOYD AND M.J. SEATON, EDITORS) PERGAMON PRESS, NEW YORK, PAGES 327-334.

DOBSON, G.M.R.

OBSERVATIONS OF THE AMOUNT OF OZONE IN THE EARTH'S ATMOSPHERE, AND ITS RELATION TO OTHER GEOPHYSICAL CONDITIONS, PART IV

PROCEEDINGS OF THE ROYAL SOCIETY (1930) VOL. A129, PAGES 411-433.

DOBSON, G.M.R.

ORIGIN AND DISTRIBUTION OF POLYATOMIC MOLECULES IN THE ATMOSPHERE

PROCEEDINGS OF THE ROYAL SOCIETY (1956) VOL. A236, PAGES 187-193.

DOBSON, G.M.R., A.W. BREWER, AND J.T. HOUGHTON

THE HUMIDITY OF THE STRATOSPHERE

JOURNAL OF GEOPHYSICAL RESEARCH (1962) VOL. 67, PAGES 902-903.

DUTSCH, H.U.

OZONE AND TEMPERATURE IN THE STRATOSPHERE

PROCEEDINGS OF THE INTERNATIONAL SYMPOSIUM ON STRATOSPHERIC AND MESOSPHERIC CIRCULATION (1963) INST. METEOROLOGICAL GEOPHYSICS, FREIEN UNIVERSITY, BERLIN, PAGES 271-291.

DUTSCH, H.U.

OZONE DISTRIBUTION AND STRATOSPHERIC TEMPERATURE FIELD OVER EUROPE DURING THE SUDDEN WARMING IN JANUARY/FEBRUARY 1958

REITRAEGE ZUR PHYSIK DER ATMOSPHAERE (CONTRIBUTIONS TO ATMOSPHERIC PHYSICS) (1962) VOL. 35, PAGES 87-107.

DUTSCH, H.U.

VERTICAL OZONE DISTRIBUTION FROM UMKEHR OBSERVATIONS

ARCHIV FUER METEOROLOGIE, GEOPHYSIK, UND BIOKLIMATOLOGIE (1959) VOL. A11
PAGES 240-251.

DYER, A.J., AND B.B. HICKS

GLOBAL SPREAD OF VOLCANIC DUST FROM THE BALI ERUPTION OF 1963

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1968) VOL. 94,
PAGES 545-554.

DYER A.J., AND B.B. HICKS

STRATOSPHERIC TRANSPORT OF VOLCANIC DUST INFERRED FROM SOLAR RADIATION
MEASUREMENTS

NATURE (1965) VOL. 208, PAGES 131-133.

FLSASSER, W.M.

ATMOSPHERIC RADIATION TABLES

METEOROLOGICAL MONOGRAPHS (1960) VOL. 4, NO. 23, PAGES 1-43.

ELTERMAN, L.

ALTITUDE VARIATION OF RAYLEIGH, AEROSOL AND OZONE ATTENUATING
COMPONENTS IN THE ULTRAVIOLET REGION

U.S. AIR FORCE CAMBRIDGE RESEARCH LABORATORIES (1964) L.G. HANSCOM
FIELD, MASSACHUSETTS, ENVIRONMENTAL RESEARCH PAPERS NO. 20.

ELTERMAN, L., R. WEXLER, AND D.T. CHANG

FEATURES OF TROPOSPHERIC AND STRATOSPHERIC DUST

APPLIED OPTICS (1969) VOL. 8, PAGES 893-903.

EPSTEIN, E.S., C. OSTERBERG, AND A. ADEL

A NEW METHOD FOR THE DETERMINATION OF THE VERTICAL DISTRIBUTION OF
OZONE FROM A GROUND STATION

JOURNAL OF METEOROLOGY (1956) VOL. 13, PAGES 319-334.

EUCKEN, A., AND F. PATAT

DIE TEMPERATURABHANGIGKEIT DER PHOTOCHEMISCHEN OZONBILDUNG

ZEITSCHRIFT FUER PHYSIKALISCHE CHEMIE (1936) VOL. 33, PAGES 459-474.

FABIAN, P., W.F. LIBBY, AND C.E. PALMER

STRATOSPHERIC RESIDENCE TIME AND INTERHEMISPHERIC MIXING OF STRONTIUM 90
FROM FALLOUT IN RAIN

JOURNAL OF GEOPHYSICAL RESEARCH (1968) VOL. 73, PAGES 3611-3616.

FARQUHARSON, J.S.

CLOUD IN THE STRATOSPHERE

THE METEOROLOGICAL MAGAZINE (1952) VOL. 81, PAGES 341-345.

FEELY, H.W., H. SEITZ, R.J. LAGOMARSINO, AND P.E. BISCAYE

TRANSPORT AND FALLOUT OF STRATOSPHERIC RADIOACTIVE DEBRIS

TELLUS (1966) VOL. 18, PAGES 316-328.

FEELY, H.W., AND J. SPAR

TUNGSTEN 185 FROM NUCLEAR BOMB TESTS AS TRACER FOR STRATOSPHERIC METEOROLOGY

NATURE (1960) VOL. 188, PAGES 1062-1064.

FESENKOV, V.G.

THE MASS OF THE ATMOSPHERIC RESIDUE OF THE SILHOTE-ALIN METEORITE

DOKL. AKAD. NAUK SSSR (1949) VOL. 66, PAGES 231-238.

FINGER, F.G., AND R.M. MCINTURFF

METEOROLOGY AND THE SUPERSONIC TRANSPORT

SCIENCE (1970) VOL. 167, PAGES 16-25.

FIOCCO, G., AND G. GRAMS

OBSERVATIONS OF THE AEROSOL LAYER AT 20 KM BY OPTICAL RADAR

JOURNAL OF ATMOSPHERIC SCIENCES (1964) VOL. 21, PAGES 323-324.

FIOCCO, G., AND G. GRAMS

ON THE ORIGIN OF NOCTILUCENT CLOUDS: EXTRATERRESTRIAL DUST AND TRAPPED WATER MOLECULES

JOURNAL OF ATMOSPHERIC AND TERRESTRIAL PHYSICS (1971) VOL. 33, PAGES 815-824.

FLOWERS, E.C., R.A. MC CORMICK AND K.R. KURFIS

ATMOSPHERIC TURBIDITY OVER THE UNITED STATES, 1961-1966

JOURNAL OF APPLIED METEOROLOGY (1969) VOL. 8, PAGES 955-962.

FLOWERS, E.C., AND H.J. VIEBROCK

SOLAR RADIATION-AN ANOMALOUS DECREASE OF DIRECT SOLAR RADIATION
SCIENCE (1965) VOL. 148, PAGES 493-494.

FOWLE, F.E.

OZONE IN THE NORTHERN AND SOUTHERN HEMISPHERES

JOURNAL OF TERRESTRIAL MAGNETISM AND ATMOSPHERIC ELECTRICITY (1928)
VOL. 33, PAGES 151-157.

FRIEDMAN, H.

THE SUN'S IONIZING RADIATIONS

PHYSICS OF THE UPPER ATMOSPHERE (1960) (J.A. RATCLIFFE, EDITOR)
ACADEMIC PRESS, PAGES 133-218.

FRIEDMAN, H.

X-RAY AND ULTRAVIOLET RADIATION MEASUREMENTS FROM ROCKETS

SPACE ASTROPHYSICS (1961) (W. LILLER, EDITOR) MCGRAW-HILL, NEW YORK,
PAGES 107-120.

FRIEND, J.P., H.W. FEELY, P.W. KREY, J. SPAR, AND A. WALTON

THE HIGH ALTITUDE SAMPLING PROGRAM, FINAL REPORT

DEFENSE ATOMIC SUPPORT AGENCY (1961) ISOTOPES, INC., WESTWOOD, NEW
JERSEY, CONTRACT DA-29-044-X7-609.

FRY, L.M., F.A. JEW, AND P.K. KURODA

ON THE STRATOSPHERIC FALLOUT OF STRONTIUM-90: THE SPRING PEAK OF 1959
JOURNAL OF GEOPHYSICAL RESEARCH (1960) VOL. 65, PAGES 2061-2066.

GODSON, W.L.

THE EVALUATION OF INFRA-RED RADIATIVE FLUXES DUE TO ATMOSPHERIC WATER VAPOR

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1953) VOL. 79, PAGES 367-379.

GODSON, W.L.

THE REPRESENTATION AND ANALYSIS OF VERTICAL DISTRIBUTIONS OF OZONE

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1960) VOL. 88, PAGES 220-232.

GODSON, W.L.

TOTAL OZONE AND THE MIDDLE STRATOSPHERE OVER ARCTIC AND SUB-ARCTIC AREAS IN WINTER AND SPRING

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1960) VOL. 86, PAGES 301-317.

GOODY, R.M., AND W.T. ROACH

DETERMINATION OF THE VERTICAL DISTRIBUTION OF OZONE FROM EMISSION SPECTRA

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1956) VOL. 82, PAGES 217-221.

GOODY, R.M., AND W.T. ROACH

THE DETERMINATION OF TROPOSPHERIC OZONE FROM INFRA-RED EMISSION SPECTRA

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1958) VOL. 82, PAGES 108-117.

GOTZ, F.W.

OZONE IN THE ATMOSPHERE

COMPENDIUM OF METEOROLOGY (1951) PAGES 275-291.

GOTZ, F.W.P., A.R. MEETHAM, AND G.M.B. DOBSON

THE VERTICAL DISTRIBUTION OF OZONE IN THE ATMOSPHERE

PROCEEDINGS OF THE ROYAL SOCIETY (1934) VOL. A145, PAGES 416-446.

GOWAN, E.H.

NIGHT COOLING OF THE OZONOSPHERE

PROCEEDINGS OF THE ROYAL SOCIETY (1947) VOL. A190, PAGES 227-231.

GOWAN, E.H.

OZONOSPHERE TEMPERATURE UNDER RADIATIVE EQUILIBRIUM

PROCEEDINGS OF THE ROYAL SOCIETY (1947) VOL. A190, PAGES 219-226.

GRAMS, G., AND G. FUICCO

STRATOSPHERIC AEROSOL LAYER DURING 1964 AND 1965

JOURNAL OF GEOPHYSICAL RESEARCH (1967) VOL. 72, PAGES 3523-3541.

GRAY, C.R.

MIT/IL X-15 HORIZON DEFINITION EXPERIMENT, FINAL REPORT

MASSACHUSETTS INSTITUTE OF TECHNOLOGY (1969) MIT INSTRUMENTATION
LABORATORY REPORT R-648, OCTOBER, CAMBRIDGE, MASSACHUSETTS.

GROVES, G.V.

HIGH ATMOSPHERE WIND STUDIES BY SKYLARK ROCKET CLOUD RELEASES
IN FIRST INTERNATIONAL SYMPOSIUM ON ROCKET AND SATELLITE
METEOROLOGY (H. WEXLER AND J.E. CASKEY, JR., EDITORS) (1963)
PAGES 60-69, WILEY, NEW YORK.

GUBIKSEN, P.H., A.W. FAIRHALL, AND R.J. REED

ROLES OF MEAN MERIDIONAL CIRCULATION AND EDDY DIFFUSION IN THE TRANSPORT
OF TRACE SUBSTANCES IN THE LOWER STRATOSPHERE
JOURNAL OF GEOPHYSICAL RESEARCH (1968) VOL. 73, PAGES 4461-4473.

GUFENBERG, B.

PHYSICAL PROPERTIES OF THE ATMOSPHERE UP TO 100 KM
JOURNAL OF METEOROLOGY (1946) VOL. 3, PAGES 27-30.

HAAGEN-SMIT, A.J., AND L.G. WAYNE

ATMOSPHERIC REACTIONS AND SCAVENGING PROCESSES
AIR POLLUTION (1968) (A.C. STERN, EDITOR) ACADEMIC PRESS, NEW YORK,
VOL. 1, PAGES 149-186.

HAGE, K.D.

PARTICLE FALLOUT AND DISPERSION BELOW 30 KM IN THE ATMOSPHERE
SANDIA REPORT SC-DC-64-1463 (1964).

HAGEMANN, F., J. GRAY, L. MACHTA, AND A. TURKEVICH

STRATOSPHERIC CARBON-14, CARBON DIOXIDE, AND TRITIUM
SCIENCE (1959) VOL. 130, PAGES 542-552.

HARRIS, B.

VOLCANIC PARTICLES IN THE STRATOSPHERE

AUSTRALIAN JOURNAL OF PHYSICS (1964) VOL. 17, PAGES 272-479.

HARRISON, H.

STRATOSPHERIC OZONE WITH ADDED WATER VAPOR: INFLUENCE OF HIGH ALTITUDE AIRCRAFT

SCIENCE (1970) VOL. 170, PAGE 734.

HARTECK, P.

A DISCUSSION OF THE REACTIONS OF NITROGEN AND NITROGEN OXIDES IN THE UPPER ATMOSPHERE

THE THRESHOLD OF SPACE (1957) (M. ZELIKOFF, EDITOR) PERGAMON PRESS, NEW YORK, PAGES 32-39.

HARTECK, P., AND S. DONDES

REACTION OF CARBON MONOXIDE AND OZONE

JOURNAL OF CHEMICAL PHYSICS (1957) VOL. 26, PAGES 1734-1737.

HAURWITZ, B.

ATMOSPHERIC OZONE AS A CONSTITUENT OF THE ATMOSPHERE

BULLETIN OF THE AMERICAN METEOROLOGICAL SOCIETY (1938) VOL. 19, PAGES 417-424.

HEMENWAY, C.I., R.K. SOBERMAN, AND G. WITT

PARTICLE SAMPLING FROM NOCTILUCENT CLOUDS

NATURE (1963) VOL. 199, PAGES 269-270.

HEMENWAY, C.I., R.K. SOBERMAN, AND G. WITT

SAMPLING OF NOCTILUCENT CLOUD PARTICLES

TELLUS (1964) VOL. 16, PAGES 84-88.

HERING, W.S.

OZONESONDE OBSERVATIONS OVER NORTH AMERICA, VOLUME I

CAMBRIDGE RESEARCH LABORATORIES (1964) U.S. AIR FORCE, L.G. HANSCOM
FIELD, MASSACHUSETTS, REPORT 64-30, 528 PAGES.

HERING, W.S., C.N. TOUART, AND T.R. BORDEN, JR.

OZONE HEATING AND RADIATIVE EQUILIBRIUM IN THE LOWER STRATOSPHERE

JOURNAL OF THE ATMOSPHERIC SCIENCES (1967) VOL. 24, PAGES 402-413.

HERMAN, B.M., S.R. BROWNING, AND R.J. CURRAN

THE EFFECT OF ATMOSPHERIC AEROSOLS ON SCATTERED SUNLIGHT

JOURNAL OF THE ATMOSPHERIC SCIENCES (1971) VOL. 28, PAGES 419-428.

HERZBERG, G., AND L. HERZBERG

PRODUCTION OF NITROGEN ATOMS IN THE UPPER ATMOSPHERE

NATURE (1948) VOL. 161, PAGE 283.

HESSTVEDT, E.

NOTE ON THE NATURE OF NOCTILUCENT CLOUDS

JOURNAL OF GEOPHYSICAL RESEARCH (1961) VOL. 66, PAGES 1985-1987.

HESSTVEDT, E.

ON THE PROBABILITY OF ICE CLOUD FORMATION AT THE MESOPAUSE
TELLUS (1962) VOL. 14, PAGES 290-296.

HESSTVEDT, E.

VERTICAL DISTRIBUTION OF CO NEAR THE TROPOPAUSE
NATURE (1970) VOL. 225, PAGE 50.

HILSEN RATH, F

OZONE MEASUREMENTS IN THE MESOSPHERE AND STRATOSPHERE DURING TWO
SIGNIFICANT GEOPHYSICAL EVENTS
JOURNAL OF THE ATMOSPHERIC SCIENCES (1971) VOL. 28, PAGES 295-297.

HINTEREGGER, H.E.

PRELIMINARY DATA ON SOLAR EXTREME ULTRAVIOLET RADIATION IN THE
UPPER ATMOSPHERE
JOURNAL OF GEOPHYSICAL RESEARCH (1961) VOL. 66, PAGES 2367-2380.

HOGG, A.R.

THE MOUNT AGUNG ERUPTION AND ATMOSPHERIC TURBIDITY
AUSTRALIAN JOURNAL OF SCIENCE (1963) VOL. 26, PAGES 119-120.

HORIUCHI, G.

ODD OXYGEN IN THE MESOSPHERE AND SOME METEOROLOGICAL CONSIDERATIONS
GEOPHYSICAL MAGAZINE (1961) VOL. 30, PAGES 439-520.

HOUGHTON, J.T., AND J.S. SEELEY

SPECTROSCOPIC OBSERVATIONS OF THE WATER-VAPOUR CONTENT OF THE STRATOSPHERE

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1960) VOL. 86, PAGES 358-370.

HULTQUIST, B., AND J. ORNTER

STRONGLY ABSORBING LAYERS BELOW 50 KM

PLANETARY AND SPACE SCIENCE (1959) VOL. 1, PAGES 193-204.

HUMPHREYS, W.J.

NACREOUS AND NOCTILUCENT CLOUDS

MONTHLY WEATHER REVIEW (1933) VOL. 61, PAGES 228-229.

HUNT, R.G.

PHOTOCHEMISTRY OF OZONE IN A MOIST ATMOSPHERE

JOURNAL OF GEOPHYSICAL RESEARCH (1966) VOL. 71, PAGES 1385-1398.

ISTOMIN, V.G., AND A.A. POKHUNKOV

MASS-SPECTROMETER MEASUREMENTS OF ATMOSPHERIC COMPOSITION IN THE USSR

SPACE RESEARCH III (1963) (W. PRIESTER, EDITOR) NORTH-HOLLAND PUBL. CO., AMSTERDAM, PAGES 117-131.

JACORS, L.

DUST CLOUD IN THE STRATOSPHERE

THE METEOROLOGICAL MAGAZINE (1954) VOL. 83, PAGE 115.

JAFFE, L.S.

AMBIENT CARBON MONOXIDE AND ITS FATE IN THE ATMOSPHERE

JOURNAL OF THE AIR POLLUTION CONTROL ASSOCIATION (1968) VOL. 18, PAGES 534-540.

JOHNSON, F.S.

HIGH-ALTITUDE DIURNAL TEMPERATURE CHANGES DUE TO OZONE ABSORPTION

BULLETIN OF THE AMERICAN METEOROLOGICAL SOCIETY (1953) VOL. 34, PAGES 106-110.

JOHNSON, F.S., J.D. PURCELL, AND R. TOUSEY

MEASUREMENTS OF THE VERTICAL DISTRIBUTION OF ATMOSPHERIC OZONE FROM ROCKETS

JOURNAL OF GEOPHYSICAL RESEARCH (1951) VOL. 56, PAGES 583-594.

JOHNSON, F.S., J.D. PURCELL, AND R. TOUSEY

STUDIES OF THE OZONE LAYER ABOVE NEW MEXICO

ROCKET EXPLORATION OF THE UPPER ATMOSPHERE (1954) (R.L.F. BOYD AND M.J. SEATON, EDITORS) PERGAMON PRESS, NEW YORK, PAGES 189-199.

JOHNSON, F.S., J.D. PURCELL, R. TOUSEY, AND K. WATANABE

DIRECT MEASUREMENTS OF THE VERTICAL DISTRIBUTION OF ATMOSPHERIC OZONE TO 70 KILOMETERS ALTITUDE

JOURNAL OF GEOPHYSICAL RESEARCH (1952) VOL. 57, PAGES 157-176.

JOHNSTON, H.S., AND K. DEV JAIN

SULFUR DIOXIDE SENSITIZED PHOTOCHEMICAL OXIDATION OF HYDROCARBONS
SCIENCE (1960) VOL. 131, PAGES 1523-1524.

JUNGE, C.E.

VERTICAL PROFILES OF CONDENSATION NUCLEI IN THE STRATOSPHERE
JOURNAL OF METEOROLOGY (1961) VOL 18, PAGES 501-509.

JUNGE, C.E.

GLOBAL OZONE BUDGET AND EXCHANGE BETWEEN STRATOSPHERE AND TROPOSPHERE
TELLUS (1962) VOL. 14, PAGES 363-377.

JUNGE, C.E.

STUDIES OF GLOBAL EXCHANGE PROCESSES IN THE ATMOSPHERE BY NATURAL AND
ARTIFICIAL TRACES
JOURNAL OF GEOPHYSICAL RESEARCH (1963) VOL. 68, PAGES 3849-3855.

JUNGE, C.E., C.W. CHAGNON, AND J.E. MANSON

STRATOSPHERIC AEROSOLS
JOURNAL OF METEOROLOGY (1961) VOL. 18, PAGES 81-108.

JUNGE, C.E., AND G. CZERLAK

SOME ASPECTS OF THE SEASONAL VARIATION OF CARBON DIOXIDE AND OZONE
TELLUS (1968) VOL. 20, PAGES 422-434.

JUNGE, C., AND MCLAREN, E.

RELATIONSHIP OF CLOUD NUCLEI SPECTRA TO AEROSOL SIZE DISTRIBUTION AND COMPOSITION

JOURNAL OF THE ATMOSPHERIC SCIENCES (1971) VOL. 28, PAGES 382-390.

JUNGE, C.E. AND J.E. MANSON

STRATOSPHERIC AEROSOL STUDIES

JOURNAL OF GEOPHYSICAL RESEARCH (1961) VOL. 66, PAGES 2163-2182.

JUNGE, C.E., O. OLDENBERG, AND J.T. WASSON

ON THE ORIGIN OF THE SODIUM PRESENT IN THE UPPER ATMOSPHERE

JOURNAL OF GEOPHYSICAL RESEARCH (1962) VOL. 67, PAGES 1027-1039.

JURSA, A.S., Y. TANAKA, AND F. LEBLANC

NITRIC OXIDE AND MOLECULAR OXYGEN IN THE EARTH'S UPPER ATMOSPHERE

PLANETARY AND SPACE SCIENCE (1959) VOL. 1, PAGES 161-172.

KAISER, T.R., AND S. EVANS

UPPER ATMOSPHERIC DATA FROM METEORS

ANNALS DE GEOPHYSIQUE (1955) VOL. 11, PAGES 148-151.

KALKSTEIN, M.I.

MOVEMENT OF MATERIAL FROM HIGH ALTITUDE DEDUCED FROM TRACER OBSERVATIONS

JOURNAL OF GEOPHYSICAL RESEARCH (1963) VOL. 68, PAGES 3835-3839.

KAO, S.-K.

RELATIVE DISPERSION OF PARTICLES IN A STRATIFIED ROTATING ATMOSPHERE
JOURNAL OF THE ATMOSPHERIC SCIENCES (1968) VOL. 25, PAGES 481-487.

KAO, S.-K.

SOME ASPECTS OF THE LARGE-SCALE TURBULENCE AND DIFFUSION IN THE
ATMOSPHERE

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1965) VOL. 91,
PAGES 10-17.

KAO, S.-K., AND A.A. GAIN

LARGE-SCALE DISPERSION OF CLUSTERS OF PARTICLES IN THE ATMOSPHERE
JOURNAL OF THE ATMOSPHERIC SCIENCES (1968) VOL. 25, PAGES 214-221.

KAO, S.-K. AND W.R. HILL

CHARACTERISTICS OF THE LARGE-SCALE DISPERSION OF PARTICLES IN THE
SOUTHERN HEMISPHERE

JOURNAL OF THE ATMOSPHERIC SCIENCES (1970) VOL. 27, PAGES 126-132.

KAO, S.-K., AND D.C. POWELL

LARGE-SCALE DISPERSION OF CLUSTERS OF PARTICLES IN THE ATMOSPHERE II.
STRATOSPHERE

JOURNAL OF THE ATMOSPHERIC SCIENCES (1969) VOL. 26, PAGES 734-740.

KAPLAN, L.D.

THE INFLUENCE OF CARBON DIOXIDE VARIATIONS ON THE ATMOSPHERIC HEAT
BALANCE

TELLUS (1960) VOL. 12, PAGES 204-208.

KARANDIKAR, R.V., AND K.R. RAMANATHAN

VERTICAL DISTRIBUTION OF ATMOSPHERIC OZONE IN LOW LATITUDES

PROCEEDINGS OF THE INDIAN ACADEMY OF SCIENCE (1949) VOL. 29, PAGES 330-348.

KAROL, I.L.

NUMERICAL MODEL OF THE GLOBAL TRANSPORT OF RADIOACTIVE TRACERS FROM THE INSTANTANEOUS SOURCES IN THE LOWER STRATOSPHERE

JOURNAL OF GEOPHYSICAL RESEARCH (1970) VOL. 75, PAGES 3589-3603.

KATZ, M.

PHOTOCHEMICAL REACTIONS OF ATMOSPHERIC POLLUTANTS

THE CANADIAN JOURNAL OF CHEMICAL ENGINEERING (1970) VOL. 48, PAGES 3-11.

KAUFMAN, F., AND J.R. KELSO

THE HOMOGENEOUS RECOMBINATION OF ATOMIC OXYGEN

CHEMICAL REACTIONS IN THE LOWER AND UPPER ATMOSPHERE (1961) WILEY (INTERSCIENCE), NEW YORK, PAGE 255.

KAY, R.H.

THE MEASUREMENT OF OZONE VERTICAL DISTRIBUTION BY A CHEMICAL METHOD TO HEIGHTS OF 12 KM FROM AIRCRAFT

ROCKET EXPLORATION OF THE UPPER ATMOSPHERE (1954) (R.L.F. BOYD AND M.J. SEATON, EDITORS), PERGAMON PRESS, OXFORD, PAGES 208-211.

KEEGAN, T.J.

OBSERVED VARIATIONS OF WINDS AND CIRCULATIONS IN THE MESOSPHERE
BULLETIN OF THE AMERICAN METEOROLOGICAL SOCIETY (1961) VOL. 42, PAGE
126.

KELLOGG, W.W.

POLLUTION OF THE UPPER ATMOSPHERE BY ROCKETS
SPACE SCIENCE REVIEW (1964) VOL. 3, PAGES 275-316.

KHVOSTIKOV, I.A.

SILVERY CLOUDS
PRIRODA, MOSCOW (1952) VOL. 5, PAGES 49-59.

KISELEVA, M.S., B.S. NEPORENT, AND V.A. FURSINKIV

SPECTRAL DETERMINATION OF WATER VAPOR IN THE UPPER ATMOSPHERE
OPT. SPECTR. (USSR) (ENGLISH TRANSL.) VOL. 6, PAGES 922-924.

KISS, E.

ANNOTATED BIBLIOGRAPHY ON UPPER ATMOSPHERE STRUCTURE
METEOROLOGICAL AND GEOSTROPHICAL ABSTRACTS (1961) VOL. 12,
PAGES 776-826.

KITAOKA, T.

A SHORT COMMENT ON THE RELATION BETWEEN THE INCREASE IN OZONE CONTENT
AND THE INCREASE IN STRATOSPHERIC TEMPERATURES
PROCEEDINGS OF THE INTERNATIONAL SYMPOSIUM ON STRATOSPHERIC AND
MESOSPHERIC CIRCULATION (1963) INSTITUTE OF METEOROLOGY AND GEOPHYSICS,
FREIEN UNIVERSITY, BERLIN, PAGES 313-315.

KROENING, J.I.

ION DENSITY MEASUREMENTS IN THE STRATOSPHERE

JOURNAL OF GEOPHYSICAL RESEARCH (1960) VOL. 65, PAGES 145-151.

KROENING, J.I., AND E.P. NEY

ATMOSPHERIC OZONE

JOURNAL OF GEOPHYSICAL RESEARCH (1962) VOL. 67, PAGES 1867-1875.

KUHN, P.M., M.S. LOJKO, AND F.W. PETERSEN

INFRARED MEASUREMENTS OF VARIATIONS IN STRATOSPHERIC WATER VAPOR

NATURE (1969) VOL. 223, PAGES 462-464.

KULKARNI, R.N.

COMPARISON OF OZONE VARIATIONS AND OF ITS DISTRIBUTION WITH HEIGHT
OVER MIDDLE LATITUDES OF THE TWO HEMISPHERES

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1962) VOL. 88,
PAGES 522-534.

LAL, D., AND RAMA

CHARACTERISTICS OF GLOBAL TROPOSPHERIC MIXING BASED ON MAN-MADE
CARBON-14, TRITIUM, AND STRONTIUM-90

JOURNAL OF GEOPHYSICAL RESEARCH (1966) VOL. 71, PAGES 2865-2874.

LAMB, H.H.

VOLCANIC DUST IN THE ATMOSPHERE WITH A CHRONOLOGY AND ASSESSMENT OF ITS
METEOROLOGICAL SIGNIFICANCE

PHILOSOPHICAL TRANSACTIONS OF THE ROYAL SOCIETY OF LONDON (1970)
SERIES A, VOL. 266, PAGES 425-533.

LEIGHTON, P.A.

PHOTOCHEMISTRY OF AIR POLLUTION
ACADEMIC PRESS (1961) NEW YORK.

LEITH, C.E.

GEO POLLUTION SURVEYED
SCIENCE (1971) VOL. 171, PAGE 365.

LEVY, C.B.

ATMOSPHERIC OZONE-AN ANALYTIC MODEL FOR PHOTOCHEMISTRY IN THE PRESENCE
OF WATER VAPOR
JOURNAL OF GEOPHYSICAL RESEARCH (1969) VOL. 74, PAGES 417-426.

LETTAU, H.

DIFFUSION IN THE UPPER ATMOSPHERE
COMPENDIUM OF METEOROLOGY (1951) PAGES 320-330.

LIBBY, W.F.

MORATORIUM FALLOUT AND STRATOSPHERIC STORAGE
JOURNAL OF GEOPHYSICAL RESEARCH (1963) VOL. 68, PAGES 2933-2937.

LIBBY, W.F., AND C.E. PALMER

STRATOSPHERIC MIXING FROM RADIOACTIVE FALLOUT
JOURNAL OF GEOPHYSICAL RESEARCH (1960) VOL. 65, PAGES 3307-3313.

LIST, R.J., AND K. TELEGADAS

USING RADIOACTIVE TRACERS TO DEVELOP A MODEL OF THE CIRCULATION OF THE STRATOSPHERE

JOURNAL OF THE ATMOSPHERIC SCIENCES (1969) VOL. 26, PAGES 1128-1136.

LOCKE, J.L., AND G. HERZBERG

THE ABSORPTION DUE TO CARBON MONOXIDE IN THE INFRARED SPECTRUM

CANADIAN JOURNAL OF PHYSICS (1953) VOL. 31, PAGES 504-516.

LONDON, J.

THE DISTRIBUTION OF TOTAL OZONE IN THE NORTHERN HEMISPHERE

BEITRAEGE ZUR PHYSIK DER ATMOSPHAERE (CONTRIBUTIONS TO ATMOSPHERIC PHYSICS) (1963) VOL. 36, PAGES 254-263.

LONDON, J.

OZONE VARIATIONS AND THEIR RELATION TO STRATOSPHERIC WARMING

PROCEEDINGS OF THE INTERNATIONAL SYMPOSIUM ON STRATOSPHERIC AND MESOSPHERIC CIRCULATION (1963) INST. METEOROL. GEOPHYS., FREIEN UNIV., BERLIN, PAGES 299-311.

LONDON, J.

RADIATIVE PROPERTIES OF THE STRATOSPHERE

FINAL REPORT (1956) OCTOBER, AF19 (604)-1285, AD 110 220.

LONDON, J., AND C. PRABHAKARA

THE EFFECT OF STRATOSPHERIC TRANSPORT PROCESSES ON THE OZONE DISTRIBUTION

PROCEEDINGS OF THE INTERNATIONAL SYMPOSIUM ON STRATOSPHERIC AND MESOSPHERIC CIRCULATION (1963) INST. METEOROL. GEOPHYS., FREIEN UNIV., BERLIN, PAGES 291-299.

LUDLAM, F.H.

THE FORMS OF ICE CLOUDS II

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1956) VOL. 82,
PAGE 257.

LUDLAM, F.H.

NOCTILUCENT CLOUDS

TELLUS (1957) VOL. 9, PAGES 341-364.

MACHTA, L.

METEOROLOGY AND RADIOACTIVE FALLOUT

WMO BULLETIN (1960) APRIL, PAGES 64-70.

MACHTA, L., AND R.J. LIST

ANALYSIS OF STRATOSPHERIC STRONTIUM MEASUREMENTS

JOURNAL OF GEOPHYSICAL RESEARCH (1959) VOL. 64, 1267-1276.

MACHTA, L., K. TELEGADAS, AND R.J. LIST

THE SLOPE OF SURFACES OF MAXIMUM TRACER CONCENTRATION IN THE LOWER
STRATOSPHERE

JOURNAL OF GEOPHYSICAL RESEARCH (1970) VOL. 75, PAGES 2279-2289.

MANABE, S., AND R.T. WETHERALD

THERMAL EQUILIBRIUM OF THE ATMOSPHERE WITH A GIVEN DISTRIBUTION OF
RELATIVE HUMIDITY

JOURNAL OF THE ATMOSPHERIC SCIENCES (1967) VOL. 24, PAGES 241-259.

MANGE, P.

THE THEORY OF MOLECULAR DIFFUSION IN THE ATMOSPHERE

JOURNAL OF GEOPHYSICAL RESEARCH (1955) VOL. 51, PAGES 279-296.

MARTELL, E.A.

TUNGSTEN RADIOISOTOPE DISTRIBUTION AND STRATOSPHERIC TRANSPORT PROCESSES

JOURNAL OF THE ATMOSPHERIC SCIENCES (1968) VOL. 25, PAGES 113-125.

MASTENBROOK, H.J.

WATER VAPOR DISTRIBUTION IN THE STRATOSPHERE AND HIGH TROPOSPHERE

JOURNAL OF THE ATMOSPHERIC SCIENCES (1968) VOL. 25, PAGES 299-311.

MASTENBROOK, H.J. AND J.E. DINGER

DISTRIBUTION OF WATER VAPOR IN THE STRATOSPHERE

JOURNAL OF GEOPHYSICAL RESEARCH (1961) VOL. 66 PAGES 1437-1444.

MASTENBROOK, H.J., AND J.E. DINGER

THE MEASUREMENT OF WATER-VAPOUR DISTRIBUTION IN THE STRATOSPHERE

U.S. NAVAL RESEARCH LABORATORY (1960) WASHINGTON, D.C. REPORT NO. 551,
16.11.60, AD 247 760.

MATEER, C.L., AND W.L. GODSON

THE VERTICAL DISTRIBUTION OF ATMOSPHERIC OZONE OVER CANADIAN STATION
FROM UMKEHR OBSERVATIONS

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1960) VOL. 86,
PAGES 512-518.

MC DONALD, J.F.

CLOUD-RING IN THE UPPER STRATOSPHERE
WEATHERWISE (1963) VOL. 16, PAGES 99-148.

MCKINNON, D. AND H.W. MOREWOOD

WATER VAPOR DISTRIBUTION IN THE LOWER STRATOSPHERE OVER NORTH AND
SOUTH AMERICA
JOURNAL OF THE ATMOSPHERIC SCIENCES (1970) VOL. 27, PAGES 483-493.

MEETHAM, A.R.

THE CORRELATION OF THE AMOUNT OF OZONE WITH OTHER CHARACTERISTICS
OF THE ATMOSPHERE
QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1937) VOL. 63,
PAGES 289-307.

MEINEL, A.B., AND M.P. MEINEL

VOLCANIC SUNSET-GLOW STRATUM: ORIGIN
SCIENCE (1967) VOL. 155, PAGE 189.

MIYAKE, Y., AND K. KAWAMURE

STUDIES ON ATMOSPHERIC OZONE AT TOKYO
SCIENTIFIC PROCEEDINGS OF THE INTERNATIONAL ASSOCIATION OF METEOROLOGY,
ROME (1954) PAGES 172-176.

MOLANDER, ROGER C.

SST STRATOSPHERIC POLLUTION
IDA NOTE N-741(R) (1970).

MORELAND, W.R.

ANTARCTIC STRATOSPHERIC CIRCULATION AND OZONE OBSERVATIONS

ANTARCTIC METEOROLOGY (1960) PERGAMON PRESS, OXFORD, PAGES 394-409.

MORENO, H., N. SANDULEAK, AND J. STOCK

PHOTOMETRY AT CERRO TOLOLO, CHILE. EFFECTS OF MOUNT AGUÑG ERUPTION

SCIENCE (1965) VOL. 148, PAGES 365-366.

MOSSOP, S.C.

STRATOSPHERIC PARTICLES AT 20 KM ALTITUDE

GEOCHIMICA ET COSMOCHIMICA ACTA (1965) VOL. 29, PAGES 201-207.

MOSSOP, S.C.

VOLCANIC DUST COLLECTED AT AN ALTITUDE OF 20 KM

NATURE (1964) VOL. 203, PAGES 824-827.

MURCRAY, D., J. BROOKS, F. MURCRAY, AND W. WILLIAMS

ATMOSPHERIC ABSORPTIONS IN THE NEAR INFRARED AT HIGH ALTITUDES

JOURNAL OF THE OPTICAL SOCIETY OF AMERICA (1960) VOL. 50, PAGES 107-112.

MURCRAY, D.C., J. BROOKS, F. MURCRAY, AND C. SHAW

HIGH ALTITUDE INFRARED STUDIES OF THE ATMOSPHERE

JOURNAL OF GEOPHYSICAL RESEARCH (1958) VOL. 63, PAGES 289-299.

MURCRAY, D.G., T.G. KYLE, F.H. MURCRAY, AND W.J. WILLIAMS

PRESENCE OF NITRIC ACID IN THE UPPER ATMOSPHERE

JOURNAL OF THE OPTICAL SOCIETY OF AMERICA (1959) VOL. 59; PAGES 1131-1134.

MURCRAY, D.C., F.H. MURCRAY, W.J. WILLIAMS, AND F.E. LESLIE

WATER VAPOUR DISTRIBUTION ABOVE 90,000 FEET

JOURNAL OF GEOPHYSICAL RESEARCH (1960) VOL. 65, PAGES 3641-3649.

MURCRAY, D.G., F.H. MURCRAY AND W.J. WILLIAMS

DISTRIBUTION OF WATER VAPOR IN THE STRATOSPHERE AS DETERMINED FROM INFRARED ABSORPTION MEASUREMENTS

JOURNAL OF GEOPHYSICAL RESEARCH (1962) VOL. 67 PAGES 759-766.

MURGATROYD, R.J., P. GOLDSMITH AND W.E.H. HOLLINGS

SOME RECENT MEASUREMENTS OF HUMIDITY FROM AIRCRAFT UP TO HEIGHTS OF ABOUT 50,000 FT. OVER SOUTHERN ENGLAND

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1955) VOL. 81, PAGES 533-537.

NAUGHTON, J.J., E.F. HEALD, AND T.L. BARNES, JR.

THE CHEMISTRY OF VOLCANIC GASES

JOURNAL OF GEOPHYSICAL RESEARCH (1963) VOL. 68, PAGES 539-544.

NEWELL, R.E.

MODIFICATION OF STRATOSPHERIC PROPERTIES BY TRACE CONSTITUENT CHANGES
NATURE (1970) VOL. 227.

NEWELL, R.E.

STRATOSPHERIC TEMPERATURE CHANGE FROM THE MT. AGUNG VOLCANIC ERUPTION
OF 1963

JOURNAL OF THE ATMOSPHERIC SCIENCES (1970) VOL. 27, PAGES 977-978.

NEWELL, R.E.

TRANSFER THROUGH THE TROPOPAUSE AND WITHIN THE STRATOSPHERE

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1963) VOL. 89,
PAGES 167-204.

NEWELL, R.E.

THE TRANSPORT OF TRACER SUBSTANCES IN THE ATMOSPHERE AND THEIR
IMPLICATIONS FOR THE GENERAL CIRCULATION OF THE STRATOSPHERE

GEOFISICA PURA E APPLICATA (1961) VOL. 49, PAGES 137-158.

NEWELL, R.E., D.G. VINCENT, AND J.W. KIDSON

INTERHEMISPHERIC MASS EXCHANGE FROM METEOROLOGICAL AND TRACE SUBSTANCE
OBSERVATIONS

TELLUS (1969) VOL. 21, PAGES 641-647.

NICOLET, M.

AERONOMIC CONDITIONS IN THE MESOSPHERE AND LOWER THERMOSPHERE

SCIENTIFIC REPORT 1G2 (1958) AF 19(604)-1304, PENNSYLVANIA STATE
UNIVERSITY, PENNSYLVANIA.

NICOLET, M.

THE AERONOMIC PROBLEM OF NITROGEN OXIDES

JOURNAL OF ATMOSPHERIC AND TERRESTRIAL PHYSICS (1955) VOL. 7,
PAGES 152-169.

NICOLET, M.

THE CONSTITUTION AND COMPOSITION OF THE UPPER ATMOSPHERE

PROC. IRF (1959) VOL. 47, PAGES 142-147.

NICOLET, M.

DYNAMIC EFFECTS IN THE HIGH ATMOSPHERE

THE EARTH AS A PLANET (1954) (G.P. KUIPER, EDITOR) UNIVERSITY OF
CHICAGO, ILLINOIS, PAGES 644-712.

NICOLET, M.

NITROGEN OXIDES AND THE AIRGLOW

JOURNAL OF ATMOSPHERIC AND TERRESTRIAL PHYSICS (1955) VOL. 7,
PAGES 297-309.

NICOLET, M., AND P. MANGE

THE DISSOCIATION OF OXYGEN IN THE HIGH ATMOSPHERE

JOURNAL OF GEOPHYSICAL RESEARCH (1954) VOL. 59, PAGES 15-45.

NOLT, I.G., T.Z. MARTIN, C.W. WOOD, AND W.M. SINTON

FAR INFRARED ABSORPTION OF THE ATMOSPHERE ABOVE 4.2 KILOMETERS

JOURNAL OF THE ATMOSPHERIC SCIENCES (1971) VOL. 28, PAGES 238-241.

OHRING, G., AND H.S. MUENCH

RELATIONSHIPS BETWEEN OZONE AND METEOROLOGICAL PARAMETERS IN THE
LOWER STRATOSPHERE

JOURNAL OF METEOROLOGY (1960) VOL. 17, PAGES 195-206.

PACKER, D.M.

ALTITUDES OF THE NIGHT AIRGLOW RADIATIONS

ANNALES DE GEOPHYSIQUE (1961) VOL. 17, PAGES 67-75.

PAETZOLD, H.K.

MESSUNGEN DES ATMOSPHERISCHEN OZONE

HANDBUCH DER AEROLOGIE (1961) (HESSE, EDITOR) LEIPZIG, PAGES 458-528.

PAETZOLD, H.K.

NEW EXPERIMENTAL AND THEORETICAL INVESTIGATIONS ON THE ATMOSPHERIC
OZONE LAYER

JOURNAL OF ATMOSPHERIC AND TERRESTRIAL PHYSICS (1955) VOL. 7, PAGES
128-140.

PALTRIDGE, G.W.

EXPERIMENTAL MEASUREMENTS OF THE SMALL-ION DENSITY AND ELECTRICAL
CONDUCTIVITY OF THE STRATOSPHERE

JOURNAL OF GEOPHYSICAL RESEARCH (1965) VOL. 70, PAGES 2751-2761.

PALTRIDGE, G.W., AND S.L. SARGENT

SOLAR AND THERMAL RADIATION MEASUREMENTS TO 32 KM AT LOW SOLAR
ELEVATIONS

JOURNAL OF THE ATMOSPHERIC SCIENCES (1971) VOL. 28, PAGES 242-253.

PATON, J.

NOCTILUCENT CLOUDS

METEOROLOGICAL MAGAZINE (1964) VOL. 93, PAGES 161-179.

PATON, J.

DIRECT EVIDENCE OF VERTICAL MOTION IN THE ATMOSPHERE AT A HEIGHT OF ABOUT 80 KM PROVIDED BY PHOTOGRAPHS OF NOCTILUCENT CLOUDS

PROCEEDINGS OF THE TORONTO METEOROLOGY CONFERENCE (1953) ROYAL METEOROLOGICAL SOCIETY, LONDON, PAGES 31-33.

PATON, J.

LUMINOUS NIGHT CLOUDS

THE METEOROLOGICAL MAGAZINE (1949) VOL. 78, PAGES 354-357.

PETERSON, J.T., AND R.A. BRYSON

ATMOSPHERIC AEROSOLS: INCREASED CONCENTRATIONS DURING THE LAST DECADE
SCIENCE (1968) VOL. 162, PAGES 120-121.

PHILLIPS, B.R., P.A. ALLEE, J.C. PALES AND R.H. WOESSNER

AN EXPERIMENTAL ANALYSIS OF THE EFFECT OF AIR POLLUTION ON THE CONDUCTIVITY AND ION BALANCE OF THE ATMOSPHERE

JOURNAL OF GEOPHYSICAL RESEARCH (1955) VOL. 60, PAGES 289-296.

PITTOCK, A.B.

DETERMINATION OF THE VERTICAL DISTRIBUTION OF OZONE BY TWILIGHT BALLOON PHOTOMETRY

JOURNAL OF GEOPHYSICAL RESEARCH (1963) VOL. 68, PAGES 5143-5155.

PITTOCK, A.B.

A THIN STABLE LAYER OF ANOMALOUS OZONE AND DUST CONTENT
JOURNAL OF THE ATMOSPHERIC SCIENCES (1966) VOL. 23, PAGES 538-542.

PLASS, G.N.

CARBON DIOXIDE AND CLIMATE
SCIENTIFIC AMERICAN (1959) VOL. 201, PAGES 41-47.

PORCH, W.M., R.J. CHARLSON, AND I.F. RADKE

ATMOSPHERIC AEROSOL; DOES A BACKGROUND LEVEL EXIST
SCIENCE (1970) VOL. 170, PAGES 315-317.

PRABHAKARA, C.

EFFECTS ON NON-PHOTOCHEMICAL PROCESSES ON THE MERIDIONAL DISTRIBUTION
AND TOTAL AMOUNT OF OZONE IN THE ATMOSPHERE
MONTHLY WEATHER REVIEW (1963) VOL. 91, PAGES 411-431.

PRESSMAN, J.

THE LATITUDINAL AND SEASONAL VARIATIONS OF THE ABSORPTION OF SOLAR
RADIATION BY OZONE
JOURNAL OF GEOPHYSICAL RESEARCH (1954) VOL. 59, PAGES 485-489.

PRESSMAN, J.

SEASONAL AND LATITUDINAL TEMPERATURE CHANGES IN THE OZONOSPHERE
JOURNAL OF METEOROLOGY (1955) VOL. 12, PAGES 87-89.

PRESSMAN, J. AND P. WARNECK

THE STRATOSPHERE AS A CHEMICAL SINK FOR CARBON MONOXIDE

JOURNAL OF THE ATMOSPHERIC SCIENCES (1970) VOL. 27, PAGES 155-163.

RAKIPOVA, L.P.

POSSIBLE EFFECT OF DUST ON VERTICAL AIR MOVEMENTS AND ON ISOTHERMY IN THE STRATOSPHERE

IZVESTIJA AKADEMIJI NAUK SSSR (1947) VOL. 11, PAGE 15.

RAMANATHAN, K.R., AND J.V. DAVE

THE CALCULATION OF THE VERTICAL DISTRIBUTION OF OZONE BY GOTZ UMKEHR-EFFECT (METHOD B)

ANNUAL OF THE INTERNATIONAL GEOPHYSICAL YEAR (1957) VOL. 5, PAGES 23-45.

REED, R.J.

THE ROLE OF VERTICAL MOTIONS IN OZONE-WEATHER RELATIONSHIPS

JOURNAL OF METEOROLOGY (1950) VOL. 7, PAGES 263-267.

REEVES, R.R., G. MANNELLA, AND P. HARTECK

RATE OF RECOMBINATION OF OXYGEN ATOMS

JOURNAL OF CHEMICAL PHYSICS (1960) VOL. 32, PAGES 632-633.

REGENER, V.H.

NEW EXPERIMENTAL RESULTS ON ATMOSPHERIC OZONE

SCIENTIFIC PROCEEDINGS OF THE INTERNATIONAL ASSOCIATION OF METEOROLOGY, ROME (1956) VOL. 1954, PAGES 181-188.

REGENER, V.H.

ON A SENSITIVE METHOD FOR THE RECORDING OF ATMOSPHERIC OZONE
JOURNAL OF GEOPHYSICAL RESEARCH (1960) VOL. 65, PAGES 3975-3977.

REGENER, V.H.

VERTICAL DISTRIBUTION OF ATMOSPHERIC OZONE
NATURE (1951) VOL. 167, PAGES 276-277.

REGENER, V.H., H.K. PAETZOLD, AND A. EHMERT

FURTHER INVESTIGATION OF THE OZONE LAYER
JOURNAL OF ATMOSPHERIC AND TERRESTRIAL PHYSICS (1954) SPEC. SUPPL.
VOL. 1, PAGES 202-207.

REITER, E.R.

ATMOSPHERIC TRANSPORT PROCESSES, PART I: ENERGY TRANSFERS AND
TRANSFORMATIONS

NATIONAL TECHNICAL INFORMATION SERVICE (1969) REPORT NO. TID-24868,
U.S. DEPARTMENT OF COMMERCE, SPRINGFIELD, VIRGINIA.

REITER, E.R.

ATMOSPHERIC TRANSPORT PROCESSES, PART II: CHEMICAL TRACERS

NATIONAL TECHNICAL INFORMATION SERVICE (1971) REPORT NO. TID-25314,
U.S. DEPARTMENT OF COMMERCE, SPRINGFIELD, VIRGINIA, 388 PAGES.

ROACH, W.T., AND R.M. GOODY

ABSORPTION AND EMISSION IN THE ATMOSPHERIC WINDOW FROM 770 TO 1,250 CM-1
QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1958) VOL. 84,
PAGES 319-333.

ROBBINS, R.C., K.M. BORG, AND E. ROBINSON

CARBON MONOXIDE IN THE ATMOSPHERE

JOURNAL OF THE AIR POLLUTION CONTROL ASSOCIATION (1968) VOL. 18,
PAGES 106-110.

ROSEN, J.M.

SIMULTANEOUS DUST AND OZONE SOUNDINGS OVER NORTH AND CENTRAL AMERICA

JOURNAL OF GEOPHYSICAL RESEARCH (1968) VOL. 73, PAGES 479-486.

ROSEN, J.M.

STRATOSPHERIC DUST AND ITS RELATIONSHIP TO METEORIC INFLUX

SPACE SCIENCE REVIEW (1969) VOL. 9, PAGES 59-89.

SAGALYN, R.C.

SIGNIFICANCE OF THE RATIO OF THE POLAR CONDUCTIVITIES IN REGIONS OF
VARIABLE POLLUTION CONTENT

RECENT ADVANCES IN ATMOSPHERIC ELECTRICITY (1958) OXFORD, PERGAMON
PRESS, PAGE 235.

SCOTT, W.D., D. LAMB, AND D. DUFFY

THE STRATOSPHERIC AEROSOL LAYER AND ANHYDROUS REACTIONS BETWEEN
AMMONIA AND SULFUR DIOXIDE

JOURNAL OF THE ATMOSPHERIC SCIENCES (1968) VOL. 26, PAGES 727-733.

SEILER, W., AND C. JUNGE

CARBON MONOXIDE IN THE ATMOSPHERE

JOURNAL OF GEOPHYSICAL RESEARCH (1970) VOL. 75, PAGES 2217-2226.

SEILER, W., AND C. JUNGE

DECREASE OF CARBON MONOXIDE MIXING RATIO ABOVE THE POLAR TROPOPAUSE
TELLUS (1969) VOL. 21, PAGES 477-449.

SEKERA, Z., AND J.V. DAVE

DETERMINATION OF THE VERTICAL DISTRIBUTION OF OZONE FROM THE MEASUREMENT
OF DIFFUSELY REFLECTED ULTRA-VIOLET SOLAR-RADIATION
PLANETARY AND SPACE SCIENCE (1961) VOL. 5, PAGES 122-138.

SEKERA, Z., AND J.V. DAVE

DIFFUSE TRANSMISSION OF SOLAR ULTRAVIOLET RADIATION IN THE PRESENCE OF
OZONE
ASTROPHYSICAL JOURNAL (1961) VOL. 133, PAGES 210-229.

SHAH, G.M.

APPARENT VARIATION OF OZONE DURING NIGHTTIME
JOURNAL OF ATMOSPHERIC SCIENCES (1966) OCT. 23, PAGES 535-537.

SHAH, G.M.

ENHANCED TWILIGHT GLOW CAUSED BY THE VOLCANIC ERUPTION ON BALI ISLAND IN
MARCH AND SEPTEMBER 1963
TELLUS (1969) VOL. 21, PAGES 636-640.

SHEPPARD, P.A.

ATMOSPHERIC TRACERS AND THE STUDY OF THE GENERAL CIRCULATION OF THE
ATMOSPHERE
REPORTS ON PROGRESS IN PHYSICS (1963) VOL. 26, PAGES 213-267.

SHREVE, F.L.

THEORETICAL DERIVATION OF ATMOSPHERIC ION CONCENTRATIONS, CONDUCTIVITY,
SPACE CHARGE DENSITY, ELECTRIC FIELD AND GENERATION RATE FROM 0 TO 60 KM.

JOURNAL OF THE ATMOSPHERIC SCIENCES (1970) VOL. 27, PAGES 1186-1194.

SISSENWINE, N., D.D. GRANTHAM, AND H.A. SALMELA

HUMIDITY UP TO THE MESOPAUSE

AIR FORCE SURVEYS IN GEOPHYSICS (1968) CAMBRIDGE, MASSACHUSETTES,
NO. 206, AFCRL.

SISSENWINE, N., D.D. GRANTHAM AND H.A. SALMELA

MID LATITUDE HUMIDITY TO 32 KILOMETERS

JOURNAL OF THE ATMOSPHERIC SCIENCES (1968) VOL. 25, PAGES 1129-1140.

SMITH, R.M.

A PREVIEW ON THE DETERMINATION OF MASS RETURN FLOW OF AIR AND WATER
VAPOR INTO THE STRATOSPHERE USING TRITIUM AS A TRACER

TELLUS (1968) VOL. 20, PAGES 76-81.

SNELLING, D., AND J. HAMPSON

WATER VAPOR CONCENTRATION AND NEUTRAL REACTIONS IN THE MESOSPHERE AND
STRATOSPHERE

AERONOMY REPORT NUMBER 32 (1969) UNIVERSITY OF ILLINOIS, URBANA,
METEOROLOGICAL AND CHEMICAL FACTORS IN D-REGION AERONOMY-RECORD OF THE
THIRD AERONOMY CONFERENCE, PAGES 223-234.

SOBERMAN, R.K.

NOCTILUCENT CLOUDS

SCIENTIFIC AMERICAN (1963) VOL. 208, PAGES 50-59.

STALEY, D.O.

EVALUATION OF POTENTIAL-VORTICITY CHANGES NEAR THE TROPOPAUSE AND THE RELATED VERTICAL MOTIONS, VERTICAL ADVECTION OF VORTICITY, AND TRANSFER OF RADIOACTIVE DEBRIS FROM STRATOSPHERE TO TROPOSPHERE

JOURNAL OF METEOROLOGY (1960) VOL. 17, PAGES 591-620.

STALEY, D.O.

ON THE MECHANISM OF MASS AND RADIOACTIVITY TRANSPORT FROM STRATOSPHERE TO TROPOSPHERE

JOURNAL OF THE ATMOSPHERIC SCIENCES (1962) VOL. 19, PAGES 450-467.

STALEY, D.O.

SOME COMMENTS ON PHYSICAL PROCESSES AT AND NEAR THE TROPOPAUSE

ARCHIV FUER METEOROLOGIE, GEOPHYSIK UND BIOKLIMATOLOGIE (1957)
VOL. A10, PAGES 1-19.

STEINBERG, S. AND S.F. ROHRBOUGH

THE COLLECTION AND MEASUREMENT OF CARBON DIOXIDE AND WATER VAPOR IN THE UPPER ATMOSPHERE

JOURNAL OF APPLIED METEOROLOGY (1962) VOL. 1, PAGES 418-421.

STERGIS, C.G., G.C. REIN AND T. KANGAS

ELECTRICAL FIELD MEASUREMENTS IN THE STRATOSPHERE

JOURNAL OF ATMOSPHERIC AND TERRESTRIAL PHYSICS (1957) VOL. 11,
PAGES 77-82.

STORMER, C.

MEASUREMENTS OF LUMINOUS NIGHT CLOUDS IN NORWAY, 1933 AND 1934.

ASTROPH. NORV. (1935) VOL. 1, PAGES 87-114.

SUMMERFIELD, M.

PRESSURE DEPENDENCE OF THE ABSORPTION IN THE 9.6 MICRON BAND OF OZONE

PH.D. THESIS (1941) CALIFORNIA INSTITUTE OF TECHNOLOGY

SUTTON, W.G.I.

ON THE EQUILIBRIUM OF DIFFUSION IN A TURBULENT MEDIUM

PROCEEDINGS OF THE ROYAL SOCIETY (1943) VOL. A182, PAGES 48-75.

SYMONS, G.J. (EDITOR)

THE ERUPTION OF KRAKATOA AND SUBSEQUENT PHENOMENA

REPORT OF THE KRAKATOA COMMITTEE (1888) TRUEBNER, LONDON, PAGE 497.

THOMSEN, J.W.

THE ANNUAL DEPOSIT OF METEORITIC DUST

SKY AND TELESCOPE (1953) VOL. 12, PAGE 147.

TOWNSEND, J.W.

COMPOSITION OF THE UPPER ATMOSPHERE

WORLD DATA CENTER A (1960) IGY ROCKET REPORT NO. 6, PAGES 61-82.

TWOMEY, S.

ON THE DEDUCTION OF THE VERTICAL DISTRIBUTION OF OZONE BY ULTRAVIOLET SPECTRAL MEASUREMENTS FROM A SATELLITE

JOURNAL OF GEOPHYSICAL RESEARCH (1961) VOL. 66, PAGES 2153-2162.

U.S. AIR FORCE

THE SUPPRESSION OF AIR FORCE CONDENSATION TRAILS

HANDBOOK OF GEOPHYSICS (1960) MACMILLAN, CHAPTER 19.

U.S. AIR FORCE

WEATHER: FORECASTING OF AIRCRAFT CONDENSATION TRAILS

U.S. AIR FORCE AIR WEATHER SERVICE MANUAL 105-100 (1960).

UNZ, F.

TROPOSPHERIC AND STRATOSPHERIC CONCENTRATION OF AEROSOL OBTAINED FROM DAYTIME MEASUREMENTS OF SKY POLARIZATION IN THE ZENITH

REITRAEGE ZUR PHYSIK DER ATMOSPHAERE (CONTRIBUTIONS TO ATMOSPHERIC PHYSICS) (1969) VOL. 42, PAGES 1-25.

VAN ALLEN, J.A., AND J.J. HOPFIELD

PRELIMINARY REPORT ON ATMOSPHERIC OZONE MEASUREMENTS FROM ROCKETS

MEM. SOC. ROY. SCI. LIEGE (1952) (4), VOL. 12, PAGES 179-183.

VAN VALIN, C.C.

EFFECTS ON THE STRATOSPHERE OF SST OPERATION

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (1971) MAY,
NOAA TECHNICAL REPORT ERL 208-APCL 21, 41 PAGES.

VASSY, A., AND I. RASOOL

REPARTITION VERTICALE DE L'OZONE ATMOSPHERIQUE A DIFFERENTES LATITUDES

ANNALES DE GEOPHYSIQUE (1960) VOL. 16, PAGES 262-263.

VENKATESWARAN, S.V., J.G. MOORE, AND A.J. KRUEGER

DETERMINATION OF THE VERTICAL DISTRIBUTION OF OZONE BY SATELLITE
PHOTOMETRY

JOURNAL OF GEOPHYSICAL RESEARCH (1961) VOL. 66, PAGES 1751-1771.

VESTINE, E.H.

NOCTILUCENT CLOUDS

JOURNAL OF THE ROYAL ASTRONOMICAL SOCIETY OF CANADA (1934) VOL. 28,
PAGE 249.

VOHRA, K.G., AND NAIR, P.V.N.

STABILITY OF SUBMICRON AQUEOUS SOLUTION DROPLETS IN THE ATMOSPHERE

JOURNAL OF THE ATMOSPHERIC SCIENCES (1971) VOL. 28, PAGES 280-285.

VOLZ, F.E.

ATMOSPHERIC TURBIDITY AFTER THE AGUNG ERUPTION OF 1963 AND SIZE
DISTRIBUTION OF THE VOLCANIC AEROSOL

JOURNAL OF GEOPHYSICAL RESEARCH (1970) VOL. 75, PAGE 5185.

VOLZ, F.E.

NOTE ON THE GLOBAL VARIATION OF STRATOSPHERIC TURBIDITY SINCE THE
ERUPTION OF AGUNG VOLCANO

TELLUS (1965) VOL. 17, PAGES 513-515.

VOLZ, F.E.

ON DUST IN THE TROPICAL AND MID-LATITUDE STRATOSPHERE FROM RECENT
TWILIGHT MEASUREMENTS

JOURNAL OF GEOPHYSICAL RESEARCH (1970) VOL. 75, PAGES 1641-1646.

VOLZ, F.E.

SPECTRAL SKYLIGHT AND SOLAR RADIANCE MEASUREMENTS IN THE CARIBBEAN
MARITIME AEROSOLS AND SAHARA DUST

JOURNAL OF THE ATMOSPHERIC SCIENCES (1970) VOL. 27, PAGES 1041-1047.

VOLZ, F.E.

STRATOSPHERIC DUST STRIATIONS

BULLETIN OF THE AMERICAN METEOROLOGICAL SOCIETY (1969) VOL. 50, PAGE 16.

VOLZ, F.E.

TWILIGHTS AND STRATOSPHERIC DUST BEFORE AND AFTER THE AGUNG ERUPTION
APPLIED OPTICS (1969) VOL. 8, PAGES 2507-2517.

VOLZ, F.E., AND R.M. GOODY

THE INTENSITY OF TWILIGHT AND UPPER ATMOSPHERIC DUST

JOURNAL OF ATMOSPHERIC SCIENCES (1962) VOL. 19, PAGES 385-406.

VOLZ, F., AND I. SHEEHAN

SKYLIGHT AND AEROSOL IN THAILAND DURING THE DRY WINTER SEASON
APPLIED OPTICS (1971) VOL. 10, PAGES 363-366.

VONDER HAAR, T.H., AND V.E. SUOMI

MEASUREMENTS OF THE EARTH'S RADIATION BUDGET FROM SATELLITES DURING A
FIVE-YEAR PERIOD. PART 1: EXTENDED TIME AND SPACE MEANS
JOURNAL OF THE ATMOSPHERIC SCIENCES (1971) VOL. 28, PAGES 305-314.

WALLACE, L.

THE OH NIGHTGLOW EMISSION
JOURNAL OF THE ATMOSPHERIC SCIENCES (1962) VOL. 19, PAGES 1-16.

WALSHAW, C.D.

INTEGRATED ABSORPTION BY THE 9.6 MICRON BAND OF OZONE
QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1957) VOL. 83,
PAGES 315-321.

WALSHAW, C.D.

THE ACCURACY OF DETERMINATION OF THE VERTICAL DISTRIBUTION OF
ATMOSPHERIC OZONE FROM EMISSION SPECTROPHOTOMETRY IN THE 1043 CM-1
BAND AT HIGH RESOLUTION
QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1957) VOL. 86,
PAGES 519-529.

WALTON, G.F.

THE CALCULATION OF THE VERTICAL DISTRIBUTION OF OZONE BY GOTZ UMKEHR-EFFECT (METHOD A)

ANNUAL INTERNATIONAL GEOPHYSICAL YEAR (1957) VOL. 5, PAGES 9-22.

WATANABE, K.

ULTRAVIOLET ABSORPTION PROCESSES IN THE UPPER ATMOSPHERE

ADVANCES IN GEOPHYSICS (1958) VOL. 5, PAGES 153-221.

WATANABE, K. M., M. ZELIKOFF, AND E.C.Y. INN

ABSORPTION COEFFICIENTS OF SEVERAL ATMOSPHERIC GASES

GEOPHYSICAL RESEARCH PAPERS (1953) VOL. 21, PAGES 1-80.

WEBB, W.L.

MORPHOLOGY OF NOCTILUCENT CLOUDS

JOURNAL OF GEOPHYSICAL RESEARCH (1965) VOL. 70, PAGES 4463-4475.

WEINERT, R.A.

THE MOVEMENT AND DISPERSION OF VOLCANIC DUST FROM THE ERUPTION OF MOUNT AGUNG

AUSTRALIAN METEOROLOGICAL MAGAZINE (1967) VOL. 15, PAGES 225-229.

WENZEL, E.A., I.T. LOH, M.H. NICHOLS, AND L.M. JONES

THE MEASUREMENT OF DIFFUSIVE SEPARATION IN THE UPPER ATMOSPHERE

WORLD DATA CENTER A (1958) IGY ROCKET REPORT NO. 1, PAGES 91-106.

WEXLER, H.

A METEOROLOGIST LOOKS AT THE UPPER ATMOSPHERE

ATMOSPHERIC EXPLORATIONS (H.G. HOUGHTON, EDITOR) THE TECHNOLOGY PRESS
(1958) CAMBRIDGE, MASSACHUSETTS, AND WILEY, NEW YORK, PAGES 79-100.

WEXLER, H.

SPREAD OF THE KRAKATOA VOLCANIC DUST CLOUD AS RELATED TO THE HIGH-LEVEL
CIRCULATION

BULLETIN OF THE AMERICAN METEOROLOGICAL SOCIETY (1951) VOL. 32, PAGES
48-51.

WHIPPLE, F.L.

THE EARTH'S DUST BELT

ASTRONOMICAL SCIENCE REVIEW (1961) VOL. 3, PAGES 17-20.

WITT, G.

HEIGHT STRUCTURE AND DISPLACEMENTS OF NOCTILUCENT CLOUDS

TELLUS (1962) VOL. 14, PAGES 1-18.

WITT, G.

NOCTILUCENT CLOUD OBSERVATIONS

TELLUS (1957) VOL. 9, PAGES 365-371.

WOESSNER, R.H., W.E. COBB AND R. GUNN

SIMULTANEOUS MEASUREMENTS OF THE POSITIVE AND NEGATIVE LIGHT ION
CONDUCTIVITY TO 26 KILOMETERS

JOURNAL OF GEOPHYSICAL RESEARCH (1958) VOL. 63, PAGES 171-180.

WULF, O.R., AND L.S. DEMING

THE DISTRIBUTION OF ATMOSPHERIC OZONE IN EQUILIBRIUM WITH SOLAR RADIATION AND THE RATE OF MAINTENANCE OF THE DISTRIBUTION

TERRESTIAL MAGNETISM AND ATMOSPHERIC ELECTRICITY (1937) VOL. 42, PAGES 195-202.

WULF, O.R., AND L.S. DEMING

THE EFFECT OF VISIBLE SOLAR RADIATION ON THE CALCULATED DISTRIBUTION OF ATMOSPHERIC OZONE

TERRESTIAL MAGNETISM AND ATMOSPHERIC ELECTRICITY (1936) VOL. 41, PAGES 375-378.

WULF, O.R., AND L.S. DEMING

THE THEORETICAL CALCULATION OF THE DISTRIBUTION OF PHOTOCHEMICALLY-FORMED OZONE IN THE ATMOSPHERE

TERRESTIAL MAGNETISM AND ATMOSPHERIC ELECTRICITY (1936) VOL. 41, PAGES 299-310.

YAKOVLEVA, A.V., L.A. KUDRYAVTSEVA, A.S. BRITAEV, V.F. GERASEV,
V.P. KACHALOV, A.P. KUZNETSOV, N.A. PAVLENKO, AND V.A. IOZENAS

SPECTROMETRIC INVESTIGATION OF THE OZONE LAYER UP TO A HEIGHT OF 60 KM
PLANETARY AND SPACE SCIENCE (1963) VOL. 11, PAGES 709-921.

YAMAMOTO, G.

DIRECT ABSORPTION OF SOLAR RADIATION BY ATMOSPHERIC WATER VAPOR, CARBON DIOXIDE AND MOLECULAR OXYGEN

JOURNAL OF THE ATMOSPHERIC SCIENCES (1962) VOL. 19, PAGES 182-188.

ANDERSON, A.D.

COMMENTS ON UPPER AIR WIND MEASUREMENTS WITH SMALL ROCKETS
JOURNAL OF METEOROLQGY (1957) VOL. 14, PAGES 473-474.

ANDERSON, A.D.

A WIND-MEASURING SYSTEM FOR THE TACTICAL PREDICITION OF FALLOUT
NAVAL RESEARCH REVIEW (1960) PAGES 7-14.

ANDERSON, K.A.

THIN ATMOSPHERIC LAYERS OF RADIOACTIVE DEBRIS DURING SEPTEMBER 1961
REPORT UCB-62-2 (1962) DEPARTMENT OF PHYSICS, UNIVERSITY OF CALIFORNIA,
BERKLEY, CALIFORNIA.

ANGELL, J.K., AND J. KORSHOVER

THE BIENNIAL WIND AND TEMPERATURE OSCILLATIONS OF THE EQUATORIAL
STRATOSPHERE AND THEIR POSSIBLE EXTENSION TO HIGHER ALTITUDES
MONTHLY WEATHER REVIEW (1962) VOL. 90, PAGES 127-132.

APPLEMAN, H.S.

THE CLIMATOLOGICAL WIND AND WIND VARIABILITY BETWEEN 45 AND 60 KM
JOURNAL OF GEOPHYSICAL RESEARCH (1963) VOL. 68, PAGES 3611-3617.

APPLEMAN, H.S.

A COMPARISON OF CLIMATOLOGICAL AND PERSISTENCE WIND FORECASTS AT 45
KILOMETERS
JOURNAL OF GEOPHYSICAL RESEARCH (1962) VOL. 67, PAGES 767-771.

APPLEMAN, H.S.

DERIVATION OF JET-AIRCRAFT CONTRAIL-FORMATION CURVES
AIR WEATHER SERVICE TECHNICAL REPORT 105-145 (1957) U.S. AIR FORCE.

APPLEMAN, H.S.

EFFECT OF SUPERSONIC AIRCRAFT ON CIRRUS FORMATION AND CLIMATE
AMS/AIAA CONFERENCE ON AEROSPACE METEOROLOGY (1966) PAPER NO. 66-369.

APPLEMAN, H.S.

A PRELIMINARY ANALYSIS OF MEAN WINDS TO 67 KILOMETERS
JOURNAL OF GEOPHYSICAL RESEARCH (1964) VOL. 69, PAGES 1027-1031.

ARMSTRONG, C.L., AND R.D. GARRETT

HIGH ALTITUDE WIND DATA FROM METEOROLOGICAL ROCKETS
MONTHLY WEATHER REVIEW (1960) VOL. 88, PAGES 187-190.

ARNOLD, A.

TURBULENCE IN THE STRATOSPHERE
BULLETIN OF THE AMERICAN METEOROLOGICAL SOCIETY (1952) VOL. 33, PAGE 77.

AUFM KAMPE, H.J.

NEUERE STRATOSPHERE DATEN
METEOROL. RUNDSCHAU (1953) VOL. 6, PAGES 99-100.

AUFM KAMPE, H.J.

UPPER-AIR WIND MEASUREMENTS WITH SMALL ROCKETS

JOURNAL OF METEOROLOGY (1956) VOL. 13, PAGES 601-602.

AUFM KAMPE, H.J., M.F. SMITH, AND R.M. BROWN

WINDS BETWEEN 60 AND 110 KILOMETERS

JOURNAL OF GEOPHYSICAL RESEARCH (1962) VOL. 67, PAGES 4243-4258.

AULD, C.O.

FEASIBILITY OF A METEOROLOGICAL ROCKET FOR SYNOPTIC MEASUREMENTS TO 300,000 FT.

U.S. NAVAL ORDINANCE LABORATORY (1957) WHITE OAK, MARYLAND, REPORT 5761.

AUSTIN, J.A., AND L. KRAWITZ

50 MILIBAR PATTERNS AND THEIR RELATIONSHIP TO TROPOSPHERIC CHANGES

JOURNAL OF METEOROLOGY (1956) VOL. 13, PAGES 152-159.

AYYAR, AND P.S. HARIHARA

HEMISPHERICAL TRANSPORT OF VOLCANIC DUST INFERRED FROM DIFFUSE RADIATION MEASUREMENTS

INDIAN JOURNAL OF METEOROLOGY AND GEOPHYSICS (1966) VOL. 17, PAGES 613-616.

BANDEEN, W.R., R.M. GRIFFITH, AND W. NORDBERG

MEASUREMENTS OF TEMPERATURES, DENSITIES, PRESSURES, AND WINDS OVER FORT CHURCHILL, CANADA (BY MEANS OF THE ROCKET GRENADE EXPERIMENT)

U.S. ARMY SIGNAL RESEARCH AND DEVELOPMENT LABORATORIES TR 2076, 71 PAGES.

BARR, W.C.

THEORETICAL EVALUATION OF CYLINDRICAL CHAFF AS A WIND SENSOR AT HIGH ALTITUDES

U.S. ARMY SIGNAL RESEARCH AND DEVELOPMENT LABORATORIES (1960), TR 2138, AD 241 876.

BARRETT, E.W., R.F. PUESCHEL, H.K. WEICKMANN, AND P.M. KUHN

INADVERTENT MODIFICATION OF WEATHER AND CLIMATE BY ATMOSPHERIC POLLUTANTS

ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION RESEARCH LABORATORIES (1970) ESSA TECHNICAL REPORT ERL 185-APCL 15, 103 PAGES.

BATTAN, L.J.

USE OF CHAFF FOR WIND MEASUREMENTS

BULLETIN OF THE AMERICAN METEOROLOGICAL SOCIETY (1958) VOL. 39, PAGES 258-260.

BATTEN, E.S.

WIND SYSTEMS IN THE MESOSPHERE AND LOWER IONOSPHERE

JOURNAL OF METEOROLOGY (1961) VOL. 18, PAGES 283-291.

BEDINGER, J.F., E.R. MANRING, AND S.N. GHOSH

STUDY OF SODIUM VAPOR EJECTED INTO THE UPPER ATMOSPHERE

JOURNAL OF GEOPHYSICAL RESEARCH (1958) VOL. 63, PAGES 19-29.

BELMONT, A.D.

AN ATLAS OF PREVAILING MONTHLY ZONAL WINDS IN THE STRATOSPHERE OVER THE NORTHERN HEMISPHERE

PROCEEDINGS OF THE INTERNATIONAL SYMPOSIUM ON STRATOSPHERIC AND MESOSPHERIC CIRCULATION (1963) INST. METEOROL. GEOPHYS., FREIEN UNIV., BERLIN, PAGES 537-640.

BELMONT, A.D.

THE REVERSAL OF STRATOSPHERIC WINDS OVER NORTH AMERICA DURING 1957,
1958, AND 1959

BEITRAEGE ZUR PHYSIK DER ATMOSPHERE (CONTRIBUTIONS TO ATMOSPHERIC
PHYSICS) (1962) VOL. 35, PAGES 126-140.

BELMONT, A.D., AND D.G. DARTT

DOUBLE QUASI-BIENNIAL CYCLES IN OBSERVED WINDS IN THE TROPICAL STRATOSPHERE
JOURNAL OF THE ATMOSPHERIC SCIENCES (1964) VOL. 21, PAGES 354-360.

BERKOFKY, L.

INTERNAL GRAVITY-VORTICITY LIFE WAVES OVER MOUNTAINS

JOURNAL OF GEOPHYSICAL RESEARCH (1960) VOL. 65, PAGES 3685-3691.

BETTINGER, R.T.

THE EXPLORATION OF THE HIGH ATMOSPHERE WITH ROCKETS

BULLETIN OF THE AMERICAN METEOROLOGICAL SOCIETY (1958) VOL. 39,
PAGE 435.

BEYERS, N.J., AND O.W. THIFLE

METEOROLOGICAL ROCKET WIND SENSORS

U.S. ARMY SIGNAL MISSILE SUPPORT AGENCY (1960) WHITE SANDS MISSILE
RANGE, NEW MEXICO, SPECIAL REPORT 41, AD 242 764.

BEYERS, N.J., AND O.W. THIELF

PERFORMANCE CHARACTERISTICS OF SYSTEMS FOR HIGH ALTITUDE WIND AND
TEMPERATURE OBSERVATIONS

INSTR. SOC. AM. CONF. (1961) PREPRINT 170-LA-61-1.

BEYERS, N.J., O.W. THIELE, AND N.K. WAGNER

PERFORMANCE CHARACTERISTICS OF METEOROLOGICAL ROCKET WIND AND TEMPERATURE SENSORS

U.S. ARMY ELECTRONICS RESEARCH AND DEVELOPMENT ACTIVITY (1962)
WHITE SANDS MISSILE RANGE, NEW MEXICO, TR SELWS-M-4.

BLAMONT, J.E., AND C. DE JAGER

UPPER ATMOSPHERIC TURBULENCE DETERMINED BY MEANS OF ROCKETS

JOURNAL OF GEOPHYSICAL RESEARCH (1962) VOL. 67, PAGES 3113-3119.

BLAMONT, J.E., AND C. DE JAGER

UPPER ATMOSPHERIC TURBULENCE NEAR THE 100 KM LEVEL

ANNALES DE GEOPHYSIQUE (1961) VOL. 17, PAGES 134-144.

REICHRODT, J.F., J. BLÖK, AND R.H. DEKKER

ON THE SPRING MAXIMUM OF RADIOACTIVE FALLOUT FROM NUCLEAR TEST EXPLOSIONS

JOURNAL OF GEOPHYSICAL RESEARCH (1961) VOL. 66, PAGES 135-141.

ROVILLE, B.W.

THE ALEUTIAN STRATOSPHERIC ANTICYCLONE

JOURNAL OF METEOROLOGY (1960) VOL. 17, PAGES 329-336.

BRADFORD, W.C.

THEORETICAL AND EXPERIMENTAL DISPERSIONS FOR THE ARCAS-ROBIN ROCKET

EGLIN AIR PROVING GROUND CENTER (1961) FLORIDA, TECH. DOCUMENT
APGC-TDR-61-62.

BRADFORD, W.C., AND P.W. MYERS

DISPERSION STUDY FOR THE ARCAS-ROBIN WITH 230 FEET/SECOND LAUNCH VELOCITY
EGLIN AIR PROVING GROUND CENTER (1962) FLORIDA, TECH. DOCUMENT
APGC AIDR 62-2.

BRASEFIELD, C.J.

WINDS AND TEMPERATURES IN THE LOWER STRATOSPHERE
JOURNAL OF METEOROLOGY (1950) VOL. 7, PAGES 66-69.

BRASEFIELD, C.J.

WINDS AT ALTITUDES UP TO 80 KM
JOURNAL OF GEOPHYSICAL RESEARCH (1954) VOL. 59, PAGES 233-237.

BREWER, A.W.

EVIDENCE FOR A WORLD CIRCULATION PROVIDED BY THE MEASUREMENTS OF HELIUM
AND WATER VAPOUR DISTRIBUTION IN THE STRATOSPHERE
QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1949) VOL. 75,
PAGES 351-363.

BRIGGS, J., AND W.T. ROACH

AIRCRAFT OBSERVATIONS NEAR JET STREAMS
QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1963) VOL. 89,
PAGES 225-247.

BROCKMAN, W.F.

COMPUTER PROGRAMS IN FORTRAN AND BALGOL FOR DETERMINING WINDS, DENSITY,
PRESSURE AND TEMPERATURE FROM THE ROBIN-FALLING BALLOON
UNIVERSITY OF DAYTON RESEARCH INSTITUTE (1963) REPORT AF19(604)-7450.

BRUCH, A., AND G.M. MORGAN, JR.

WIND VARIABILITY IN THE MESOSPHERE AS DETERMINED BY THE TRACKING OF FALLING OBJECTS

NEW YORK UNIVERSITY (1952) FINAL REPORT AF19 (604)-6193.

BULLARD, F.M.

VOLCANOES IN HISTORY, IN THEORY, IN ERUPTION

UNIVERSITY OF TEXAS PRESS (1962) AUSTIN.

CABLE, R.D., R. BLECK, J.P. SHEDLOVSKY, I.H. BLIFFORD,
J. ROSINSKI, AND A.L. LAZRUS

TRACE CONSTITUENTS IN THE VICINITY OF JET STREAMS

JOURNAL OF APPLIED METEOROLOGY (1969) VOL. 8, PAGES 348-356.

CABLE, R.D., A.F. WARTBURG, E.R. FRANK, AND J.P. LODGE, JR.

PARTICLES IN VOLCANIC FUME

NATURE (1967) VOL. 213, PAGE 581.

CHARNEY, J.G., AND P.G. DRAZIN

PROPAGATION OF PLANETARY-SCALE DISTURBANCES FROM THE LOWER INTO THE UPPER ATMOSPHERE

JOURNAL OF GEOPHYSICAL RESEARCH (1961) VOL. 66, PAGES 83-109.

CHIU, W.C.

THE OBSERVED MEAN MONTHLY WIND FIELDS IN THE LOWER STRATOSPHERE AND UPPER TROPOSPHERE OVER NORTH AMERICA

JOURNAL OF METEOROLOGY (1958) VOL. 15, PAGES 9-16.

CHIU, W.C.

STUDIES OF THE PROPERTIES OF THE WIND AND TEMPERATURE FIELD OF THE
UPPER TROPOSPHERE AND LOWER STRATOSPHERE

NEW YORK UNIVERSITY (1960) FINAL REPORT, CONTRACT AF19(604)-1755.

CLARK, J.E.

AIR CURRENTS AT A HEIGHT OF 50 MILES AS INDICATED BY THE BOLIDE,
FEB. 22, 1909

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1913) VOL. 39,
PAGES 115-126.

CLARK, J.H.E.

A QUASI-GEOSTROPHIC MODEL OF THE WINTER STRATOSPHERIC CIRCULATION

MONTHLY WEATHER REVIEW (1970) VOL. 98, PAGES 443-461.

CLINE, D.E.

ROCKET BEACON WIND SENSING SYSTEM

U.S. ARMY SIGNAL RESEARCH AND DEVELOPMENT LABORATORIES (1957)
ENGINEERING REPORT E-1205.

CONOVER, W.C., AND C.J. WENTZEIN

WINDS AND TEMPERATURES TO FORTY KILOMETERS

JOURNAL OF METEOROLOGY (1955) VOL. 12, PAGES 160-164.

CRARY, A.P.

ANNUAL VARIATIONS OF UPPER AIR WINDS AND TEMPERATURES IN ALASKA FROM
ACOUSTICAL MEASUREMENTS

JOURNAL OF METEOROLOGY (1953) VOL. 10, PAGES 380-389.

CRARY, A.P.

STRATOSPHERE WINDS AND TEMPERATURES FROM ACOUSTICAL PROPAGATION STUDIES
JOURNAL OF METEOROLOGY (1950) VOL. 7, PAGES 233-242.

CRARY, A.P.

STRATOSPHERE WINDS AND TEMPERATURES IN LOW LATITUDES FROM ACOUSTICAL
PROPAGATION STUDIES
JOURNAL OF METEOROLOGY (1952) VOL. 9, PAGES 93-109.

CRARY, A.P., AND V.C. BUSHNELL

ANNUAL VARIATIONS OF UPPER AIR WINDS AND TEMPERATURES IN ALASKA FROM
ACOUSTICAL MEASUREMENTS
JOURNAL OF METEOROLOGY (1953) VOL. 10, PAGES 380-389.

CRARY, A.P., AND V.C. BUSHNELL

DETERMINATION OF HIGH-ALTITUDE WINDS AND TEMPERATURES IN THE ROCKY
MOUNTAIN AREA BY ACOUSTICAL SOUNDINGS, OCTOBER 1951
JOURNAL OF METEOROLOGY (1955) VOL. 12, PAGES 463-471.

CRARY, A.P., W.B. KENNEDY, AND V.C. BUSHNELL

ATMOSPHERIC WINDS AND TEMPERATURES AT HEIGHTS UP TO 50 KM AS
DETERMINED BY ACOUSTICAL PROPAGATION STUDIES

PROCEEDINGS OF THE TORONTO METEOROLOGICAL CONFERENCE, 1953 (1954)
THE ROYAL METEOROLOGICAL SOCIETY, LONDON, PAGES 9-13.

DANIELSEN, E.F.

RADIOACTIVITY TRANSPORT FROM STRATOSPHERE TO TROPOSPHERE
MINERAL IND. JOURNAL (1964) VOL. 33, PAGES 1-7.

DANIELSEN, E.F.

STRATOSPHERIC-TROPOSPHERIC EXCHANGE BASED ON RADIOACTIVITY, OZONE AND
POTENTIAL VORTICITY
JOURNAL OF THE ATMOSPHERIC SCIENCES (1968) VOL. 25, PAGES 502-521.

DOBSON, G.M.R.

RECENT WORK ON THE STRATOSPHERE
JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1951) VOL. 77, PAGES 488-492.

DOBSON, G.M.R., A.W. BREWER, AND B.M. CWILONG

METEOROLOGY OF THE LOWER STRATOSPHERE
PROCEEDINGS OF THE PHYSICAL SOCIETY (1946) LONDON, VOL. A185, PAGES
144-175.

DRATT, D.C., AND A.D. BELMONT

PERIODIC FEATURES OF THE 50-MILLIBAR ZONAL WINDS IN THE TROPICS
JOURNAL OF GEOPHYSICAL RESEARCH (1964) VOL. 69, PAGES 2887-2893.

DYER, A.J., AND B.B. HICKS

GLOBAL SPREAD OF VOLCANIC DUST FROM THE BALI ERUPTION OF 1963
QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1968) VOL. 94,
PAGES 545-554.

DYER A.J., AND B.B. HICKS

STRATOSPHERIC TRANSPORT OF VOLCANIC DUST INFERRED FROM SOLAR RADIATION
MEASUREMENTS

NATURE (1965) VOL. 208, PAGES 131-133.

EBDON, R.A.

EVIDENCE OF THE PERMANENCY OF THE TROPICAL STRATOSPHERIC WIND
FLUCTUATION

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1963) VOL. 89,
PAGES 151-152.

EBDON, R.A.

NOTES ON THE WIND FLOW AT 50 MB IN TROPICAL AND SUB-TROPICAL REGIONS IN
JANUARY 1957 AND JANUARY 1958

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1960) VOL. 86,
PAGES 540-542.

EBDON, R.A.

SOME NOTES ON THE STRATOSPHERIC WINDS AT CANTON ISLAND AND CHRISTMAS
ISLAND

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1961) VOL. 87,
PAGES 322-331.

EBDON, R.A., AND R.G. VÉRYARD

FLUCTUATIONS IN EQUATORIAL STRATOSPHERIC WINDS

NATURE (1961) VOL. 189, PAGES 791-793.

ELFORD, W.G.

A STUDY OF WINDS BETWEEN 80 AND 100 KM IN MEDIUM LATITUDES
PLANETARY AND SPACE SCIENCE (1959) VOL. 1, PAGES 94-101.

ELFORD, W.G.

WINDS IN THE UPPER ATMOSPHERE

JOURNAL OF ATMOSPHERIC AND TERRESTRIAL PHYSICS (1959) VOL. 15, PAGES
132-136.

ELTERMAN, L., R. WEXLER, AND D.T. CHANG

FEATURES OF TROPOSPHERIC AND STRATOSPHERIC DUST
APPLIED OPTICS (1969) VOL. 8, PAGES 893-903.

FABIAN, P., W.F. LIBBY, AND C.E. PALMER

STRATOSPHERIC RESIDENCE TIME AND INTERHEMISPHERIC MIXING OF STRONTIUM 90
FROM FALLOUT IN RAIN

JOURNAL OF GEOPHYSICAL RESEARCH (1968) VOL. 73, PAGES 3611-3616.

FEELY, H.W., H. SEITZ, R.J. LAGOMARSINO, AND P.E. BISCARE

TRANSPORT AND FALLOUT OF STRATOSPHERIC RADIOACTIVE DEBRIS
TELLUS (1966) VOL. 18, PAGES 316-328.

FEELY, H.W., AND J. SPAR

TUNGSTEN 185 FROM NUCLEAR BOMB TESTS AS TRACER FOR STRATOSPHERIC
METEOROLOGY

NATURE (1960) VOL. 188, PAGES 1062-1064.

FESENKOV, V.G.

THE MASS OF THE ATMOSPHERIC RESIDUE OF THE SILHOTE-ALIN METEORITE
DOKL. AKAD. NAUK SSSR (1949) VOL. 66, PAGES 231-238.

FINGER, F.G., AND R.M. MCINTURFF

METEOROLOGY AND THE SUPERSONIC TRANSPORT
SCIENCE (1970) VOL. 167, PAGES 16-25.

FINGER, F.G., AND S. TEWELES

THE MID-WINTER 1963 STRATOSPHERIC WARMING AND CIRCULATION CHANGE
JOURNAL OF APPLIED METEOROLOGY (1964) VOL. 3, PAGES 1-15.

FINGER, F.G., AND H.M. WOOLF

SOUTHERN HEMISPHERE STRATOSPHERIC CIRCULATION AS INDICATED BY SHIPBOARD
METEOROLOGICAL ROCKET OBSERVATIONS
JOURNAL OF THE ATMOSPHERIC SCIENCES (1967) VOL. 24, PAGES 387-395.

FRIEND, J.P., H.W. FEELY, P.W. KREY, J. SPAR, AND A. WALTON

THE HIGH ALTITUDE SAMPLING PROGRAM, FINAL REPORT
DEFENSE ATOMIC SUPPORT AGENCY (1961) ISOTOPES, INC., WESTWOOD, NEW
JERSEY, CONTRACT DA-29-044-X7-609.

FROGNER, E.

TEMPERATURE CHANGES ON A LARGE SCALE IN THE ARCTIC WINTER STRATOSPHERE
AND THEIR PROBABLE EFFECTS ON THE TROPOSPHERIC CIRCULATION
GEOFYSISKE PUBLIKASJONER (1962) NORSKE VIDENSKAPS-AKAD. OSLO, VOL. 23,
PAGES 1-83.

GODSON, W.L.

A COMPARISON OF MIDDLE-STRATOSPHERE BEHAVIOR IN THE ARCTIC AND ANTARCTIC, WITH SPECIAL REFERENCE TO FINAL WARMINGS

PROCEEDINGS OF THE INTERNATIONAL SYMPOSIUM ON STRATOSPHERIC AND MESOSPHERIC CIRCULATION (1963) INST. METEOROL. GEOPHYS., FREIEN UNIV., BERLIN, PAGES 161-207.

GODSON, W.L., AND R. LEE

HIGH LEVEL FIELDS OF WIND AND TEMPERATURE OVER THE CANADIAN ARCTIC
BEITRAEGE ZUR PHYSIK DER ATMOSPHAERE (1958) VOL. 31, PAGES 40-68.

GOLDIE, A.H.R.

THE AVERAGE PLANETARY CIRCULATION IN VERTICAL MERIDIAN PLANES

CENTENNIAL PROCEEDINGS OF THE ROYAL METEOROLOGICAL SOCIETY (1950) PAGES 175-180.

GREENHOW, J.S., AND J.E. HALL

THE HEIGHT VARIATION OF THE AMBIPOLAR DIFFUSION COEFFICIENT FOR METEOR TRAILS

PLANETARY AND SPACE SCIENCE (1961) VOL. 5, PAGES 109-114.

GREENHOW, J.S., AND E.L. NEUFELD

DIURNAL AND SEASONAL WIND VARIATIONS IN THE UPPER ATMOSPHERE

PHILOSOPHICAL MAGAZINE (1955) VOL. 46, PAGES 549-562.

GREENHOW, J.S., AND E.L. NEUFELD

THE HEIGHT VARIATION OF UPPER ATMOSPHERIC WINDS
PHILOSOPHICAL MAGAZINE (1956) VOL. 1, PAGES 1157-1174.

GREENHOW, J.S., AND E.L. NEUFELD

LARGE SCALE IRREGULARITIES IN HIGH ALTITUDE WINDS
PROCEEDINGS OF THE PHYSICAL SOCIETY (1960) VOL. 75, PAGES 228-234.

GREENHOW, J.S., AND E.L. NEUFELD

MEASUREMENTS OF TURBULENCE IN THE UPPER ATMOSPHERE
PROCEEDINGS OF THE ROYAL SOCIETY (1959) VOL. A74, PAGES 1-10.

GREENHOW, J.S., AND E.L. NEUFELD

WINDS IN THE UPPER ATMOSPHERE
QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1961) VOL. 87,
PAGES 472-489.

GROVES, G.V.

INTRODUCTORY THEORY FOR UPPER ATMOSPHERE WIND AND SONIC VELOCITY
DETERMINATION BY SOUND PROPAGATION
JOURNAL OF ATMOSPHERIC AND TERRESTRIAL PHYSICS (1956) VOL. 8, PAGES
24-38.

GROVES, G.V.

THEORY OF THE ROCKET-GRENADE METHOD OF DETERMINING UPPER
ATMOSPHERIC PROPERTIES BY SOUND PROPAGATION
JOURNAL OF ATMOSPHERIC AND TERRESTRIAL PHYSICS (1956) VOL. 8, PAGES
189-203.

GROVES, G.V.

WIND AND TEMPERATURE RESULTS OBTAINED IN SKYLARK EXPERIMENTS

SPACE RESEARCH 1 (1960) (H. KALLMANN BIJL, EDITOR) NORTH HOLLAND PUBLISHING COMPANY, AMSTERDAM, PAGES 144-153.

GUDIENSEN, P.H., A.W. FAIRHALL, AND R.J. REED

ROLES OF MEAN MERIDIONAL CIRCULATION AND EDDY DIFFUSION IN THE TRANSPORT OF TRACE SUBSTANCES IN THE LOWER STRATOSPHERE

JOURNAL OF GEOPHYSICAL RESEARCH (1968) VOL. 73, PAGES 4461-4473.

GUTENBERG, B.

PHYSICAL PROPERTIES OF THE ATMOSPHERE UP TO 100 KM

JOURNAL OF METEOROLOGY (1946) VOL. 3, PAGES 27-30.

HAAGEN-SMIT, A.J., AND L.G. WAYNE

ATMOSPHERIC REACTIONS AND SCAVENGING PROCESSES

AIR POLLUTION (1968) (A.C. STERN, EDITOR) ACADEMIC PRESS, NEW YORK, VOL. 1, PAGES 149-186.

HAGE, K.D.

PARTICLE FALLOUT AND DISPERSION BELOW 30 KM IN THE ATMOSPHERE

SANDIA REPORT SC-DC-64-1463 (1964).

HARE, F.K.

THE DISTURBED CIRCULATION OF THE ARCTIC STRATOSPHERE

JOURNAL OF METEOROLOGY (1960) VOL. 17, PAGES 36-52.

HARRIS, B.

VOLCANIC PARTICLES IN THE STRATOSPHERE

AUSTRALIAN JOURNAL OF PHYSICS (1964) VOL. 17, PAGES 472-479.

HARRIS, M.F., F.G. FINGER, AND S. TEWELES

DIURNAL VARIATION OF WIND, PRESSURE, AND TEMPERATURE IN THE TROPOSPHERE AND STRATOSPHERE OVER THE AZORES

JOURNAL OF THE ATMOSPHERIC SCIENCES (1962) VOL. 19, PAGES 136-149.

HAURWITZ, B.

FRICTIONAL EFFECTS AND THE MERIDIONAL CIRCULATION IN THE MESOSPHERE

JOURNAL OF GEOPHYSICAL RESEARCH (1961) VOL. 66, PAGES 2381-2391.

HAURWITZ, B.

WIND AND PRESSURE OSCILLATIONS IN THE UPPER ATMOSPHERE

ARCHIV FUER METEOROLOGIE, GEOPHYSIK UND BIOKLIMATOLOGIE (1962) VOL. A13, PAGES 144-166.

HAURWITZ, B.

THE ZONAL WIND FIELD IN THE UPPER ATMOSPHERE

NEW YORK UNIVERSITY (1954) DEPT. OF METEOROLOGY AND OCEANOGRAPHY, SCIENCE REPORT 7.

HESS, S.

SOME NEW MEAN MERIDIONAL CROSS-SECTIONS THROUGH THE ATMOSPHERE

JOURNAL OF METEOROLOGY (1948) VOL. 5, PAGES 293-300.

HESSTVEDT, E.

ON THE EFFECT OF VERTICAL EDDY TRANSPORT ON ATMOSPHERIC COMPOSITION IN THE MESOSPHERE AND LOWER THERMOSPHERE

GEOFYSISKE PUBLIKASJONER (1968) VOL. 27, PAGES 1-35.

HUNT, B.G., AND S. MANABE

EXPERIMENTS WITH A STRATOSPHERIC GENERAL CIRCULATION MODEL: II. LARGE SCALE DIFFUSION OF TRACERS IN THE STRATOSPHERE

MONTHLY WEATHER REVIEW (1968) VOL. 96, PAGES 503-539.

JENKINS, K.R.

EMPIRICAL COMPARISONS OF METEOROLOGICAL ROCKET WIND SENSORS

JOURNAL OF APPLIED METEOROLOGY (1962) VOL. 1, PAGES 196-202.

JENKINS, K.R.

MEASUREMENTS OF HIGH ALTITUDE WINDS WITH LOKI

U.S. ARMY SIGNAL SUPPORT AGENCY (1958) WHITE SANDS MISSILE RANGE, NEW MEXICO, TM 544, AD 200 001.

JENKINS, K.R., AND W.L. WEBB

HIGH-ALTITUDE WIND MEASUREMENTS

JOURNAL OF METEOROLOGY (1959) VOL. 16, PAGES 511-515.

JENKINS, K.R., AND W.L. WEBB

ROCKET WIND MEASUREMENTS

BULLETIN OF THE AMERICAN METEOROLOGICAL SOCIETY (1958) VOL. 39, PAGE 436.

JOHNSON, D.H.

TIDAL OSCILLATIONS OF THE LOWER STRATOSPHERE

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1955) VOL. 81,
PAGES 1-A.

JOHNSON, N.K.

WIND MEASUREMENTS AT 30 KM

NATURE (1946) VOL. 157, PAGE 24.

JONES, L.M.

MEASURING UPPER AIR STRUCTURE

ASTRONAUTICS (1959) VOL. 2, PAGES 29-50.

JONES, R.F., R.M. MCINTURFF, AND S. TEWELES

METEOROLOGICAL PROBLEMS IN THE DESIGN AND OPERATION OF SUPERSONIC
AIRCRAFT

WORLD METEOROLOGICAL ORGANIZATION (1967) GENEVA, SWITZERLAND.

JULIAN, P.R.

REMARKS ON THE DISTURBED CIRCULATION OF THE ARCTIC STRATOSPHERE

JOURNAL OF METEOROLOGY (1961) VOL. 18, PAGES 119-121.

JULIAN, P.R.

SOME ASPECTS OF TROPOSPHERIC CIRCULATION DURING MIDWINTER
STRATOSPHERIC WARMING EVENTS

JOURNAL OF GEOPHYSICAL RESEARCH (1965) VOL. 70, PAGES 957-768.

JUNGE, C.E.

STUDIES OF GLOBAL EXCHANGE PROCESSES IN THE ATMOSPHERE BY NATURAL AND ARTIFICIAL TRACES

JOURNAL OF GEOPHYSICAL RESEARCH (1963) VOL. 68, PAGES 3849-3855.

KALKSTEIN, M.I.

MOVEMENT OF MATERIAL FROM HIGH ALTITUDE DEDUCED FROM TRACER OBSERVATIONS

JOURNAL OF GEOPHYSICAL RESEARCH (1963) VOL. 68, PAGES 3835-3839.

KALKSTEIN, M.I.

RHODIUM-102 HIGH-ALTITUDE TRACER EXPERIMENT

SCIENCE (1962) VOL. 137, PAGES 645-652.

KAD, S.-K.

RELATIVE DISPERSION OF PARTICLES IN A STRATIFIED ROTATING ATMOSPHERE

JOURNAL OF THE ATMOSPHERIC SCIENCES (1968) VOL. 25, PAGES 481-487.

KAD, S.-K.

SOME ASPECTS OF THE LARGE-SCALE TURBULENCE AND DIFFUSION IN THE ATMOSPHERE

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1965) VOL. 91, PAGES 10-17.

KAROL, I.L.

NUMERICAL MODEL OF THE GLOBAL TRANSPORT OF RADIOACTIVE TRACERS FROM THE INSTANTANEOUS SOURCES IN THE LOWER STRATOSPHERE

JOURNAL OF GEOPHYSICAL RESEARCH (1970) VOL. 75, PAGES 3589-3603.

KAY, R.H.

THE APPARENT DIURNAL TEMPERATURE VARIATION IN THE LOWER STRATOSPHERE
QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1951) VOL. 77,
PAGES 427-434.

KEEGAN, T.J.

LARGE-SCALE DISTURBANCES OF ATMOSPHERIC CIRCULATION BETWEEN 30 AND 70
KM IN WINTER

JOURNAL OF GEOPHYSICAL RESEARCH (1962) VOL. 67, PAGES 1831-1838.

KEEGAN, T.J.

OBSERVED VARIATIONS OF WINDS AND CIRCULATIONS IN THE MESOSPHERE
BULLETIN OF THE AMERICAN METEOROLOGICAL SOCIETY (1961) VOL. 42, PAGE
126.

KEEGAN, T.J.

WINDS AND CIRCULATIONS IN THE MESOSPHERE

JOURNAL OF THE AMERICAN ROCKET SOCIETY (1961) N.S., VOL. 31, PAGES
1060-1066.

KELLOGG, W.W., AND G.F. SCHILLING

A PROPOSED MODEL OF THE CIRCULATION IN THE UPPER STRATOSPHERE

JOURNAL OF METEOROLOGY (1951) VOL. 8, PAGES 222-230.

KENNEDY, J.S., AND W. NORDBERG

CIRCULATION FEATURES OF THE STRATOSPHERE DERIVED FROM RADIOMETRIC
TEMPERATURE MEASUREMENTS WITH THE TIROS VII SATELLITE

JOURNAL OF THE ATMOSPHERIC SCIENCES (1967) PAGES 711-719.

KENNEDY, W.B., L. BROGAN, AND N.I. SIBLE

FURTHER ACOUSTICAL STUDIES OF ATMOSPHERIC WINDS AND TEMPERATURES AT ELEVATIONS OF 30 TO 60 KILOMETERS

JOURNAL OF METEOROLOGY (1955) VOL. 12, PAGES 519-532.

KOCHANSKI, A.

CROSS SECTIONS OF THE MEAN ZONAL FLOW AND TEMPERATURE ALONG 80 DEGREES WEST

JOURNAL OF METEOROLOGY (1955) VOL. 12, PAGES 95-106.

KOCHANSKI, A.

THERMAL STRUCTURE AND VERTICAL MOTION IN THE LOWER STRATOSPHERE

AIR WEATHER SER. TECH. (1954) VOL. 35, PAGES 105-129.

LABY, J.E., AND E.L. UNTHANK

DAY-TO-DAY WIND FLUCTUATIONS OF THE WINDS IN THE LOWER STRATOSPHERE OVER AUSTRALIA

JOURNAL OF THE ATMOSPHERIC SCIENCES (1967) VOL. 24, PAGES 98-100.

LAL, D., AND RAMA

CHARACTERISTICS OF GLOBAL TROPOSPHERIC MIXING BASED ON MAN-MADE CARBON-14, TRITIUM, AND STRONTIUM-90

JOURNAL OF GEOPHYSICAL RESEARCH (1966) VOL. 71, PAGES 2865-2874.

LANGER, G. AND J. STOCKHAM

HIGH-ALTITUDE TRACKING BY CHEMICAL SMOKES

JOURNAL OF GEOPHYSICAL RESEARCH (1960) VOL. 65, PAGES 3331-3338.

LEE, R., AND W.L. GODSON

THE ARCTIC STRATOSPHERIC JET STREAM DURING THE WINTER 1955-1956
JOURNAL OF METEOROLOGY (1957) VOL. 14, PAGES 126-135.

LENHARD, R.W., JR.

HOURLY WIND VARIABILITY AT 35 TO 65 KILOMETERS OVER EGLIN AIR FORCE
BASE, FLORIDA

BULLETIN OF THE AMERICAN METEOROLOGICAL SOCIETY (1962) VOL. 43,
PAGE 94.

LENHARD, R.W., JR.

VARIATIONS OF HOURLY WINDS AT 35 TO 65 KILOMETERS DURING ONE DAY AT
EGLIN AIR FORCE BASE, FLORIDA

JOURNAL OF GEOPHYSICAL RESEARCH (1963) VOL. 68, PAGES 227-234.

LETTAU, H.

DIFFUSION IN THE UPPER ATMOSPHERE

COMPENDIUM OF METEOROLOGY (1951) PAGES 320-330.

LIBBY, W.F.

MORATORIUM FALLOUT AND STRATOSPHERIC STORAGE

JOURNAL OF GEOPHYSICAL RESEARCH (1963) VOL. 68, PAGES 2933-2937.

LIST, R.J., AND K. TELEGADAS

USING RADIOACTIVE TRACERS TO DEVELOP A MODEL OF THE CIRCULATION OF THE
STRATOSPHERE

JOURNAL OF THE ATMOSPHERIC SCIENCES (1969) VOL. 26, PAGES 1128-1136.

LONDON, J., AND C. PRABHAKARA

THE EFFECT OF STRATOSPHERIC TRANSPORT PROCESSES ON THE OZONE
DISTRIBUTION

PROCEEDINGS OF THE INTERNATIONAL SYMPOSIUM ON STRATOSPHERIC AND
MESOSPHERIC CIRCULATION (1963) INST. METEOROL. GEOPHYS., FREIEN UNIV.,
BERLIN, PAGES 291-299.

MACHTA, L.

METEOROLOGY AND RADIOACTIVE FALLOUT

WMO BULLETIN (1960) APRIL, PAGES 64-70.

MACHTA, L., K. TELEGADAS, AND R.J. LIST

THE SLOPE OF SURFACES OF MAXIMUM TRACER CONCENTRATION IN THE LOWER
STRATOSPHERE

JOURNAL OF GEOPHYSICAL RESEARCH (1970) VOL. 75, PAGES 2279-2289.

MAHLMAN, J.D.

ENERGETICS OF A 'MINOR BREAKDOWN' OF THE STRATOSPHERIC POLAR NIGHT
VORTEX

JOURNAL OF THE ATMOSPHERIC SCIENCES (1969) VOL. 26, PAGES 1306-1017.

MANGE, P.

THE THEORY OF MOLECULAR DIFFUSION IN THE ATMOSPHERE

JOURNAL OF GEOPHYSICAL RESEARCH (1955) VOL. 51, PAGES 279-296.

MANRING, E.R.

STUDY OF WINDS, DIFFUSION, AND EXPANSION OF GASES IN THE UPPER ATMOSPHERE
QUARTERLY PROGRESS REPORT, GEOPHYSICS CORPORATION OF AMERICA (1962)
NASA/GSFC CONTRACT NO. NASW-396.

MANRING, E.R., J.F. BEDINGER, H.R. KNAFLINCH, AND R. LYNCH

MEASUREMENTS OF UPPER ATMOSPHERIC WINDS AND DIFFUSION COEFFICIENTS
JOURNAL OF GEOPHYSICAL RESEARCH (1960) VOL. 65, PAGE 2509.

MANRING, E., J.F. BEDINGER, H.B. PETIT, AND C.B. MOORE

SOME WIND DETERMINATIONS IN THE UPPER ATMOSPHERE USING ARTIFICIALLY
GENERATED SODIUM CLOUDS
JOURNAL OF GEOPHYSICAL RESEARCH (1959) VOL. 64, PAGES 587-591.

MANTIS, H.T.

NOTE ON THE STRUCTURE OF THE STRATOSPHERE EASTERLIES OF MID-LATITUDE
JOURNAL OF APPLIED METEOROLOGY (1963) VOL. 2, PAGES 427-429.

MANTIS, H.T.

ON A DIURNAL VARIATION OF STRATOSPHERIC WINDS
JOURNAL OF METEOROLOGY (1960) VOL. 17, PAGES 465-468.

MARTELL, E.A.

TUNGSTEN RADIOISOTOPE DISTRIBUTION AND STRATOSPHERIC TRANSPORT PROCESSES
JOURNAL OF THE ATMOSPHERIC SCIENCES (1968) VOL. 25, PAGES 113-125.

MASTERTON, J.E., W.E. HUBERT, AND T.R. CARR

WIND AND TEMPERATURE MEASUREMENTS IN THE MESOSPHERE BY METEOROLOGICAL
ROCKETS

JOURNAL OF GEOPHYSICAL RESEARCH (1961) VOL. 66, PAGES 2141-2151.

MCCREARY, F.F.

VARIATION OF THE ZONAL WINDS IN THE EQUATORIAL STRATOSPHERE

JOINT TASK FORCE SEVEN (1961) METEOROLOGICAL CENTER, UNIVERSITY OF
HAWAII, JTFMC TP-20.

MCINTURFF, R.M., AND F.G. FINGER

THE COMPATIBILITY OF RADIOSONDE DATA AT STRATOSPHERIC LEVELS OVER THE
NORTHERN HEMISPHERE

ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION (1968) SILVER SPRING, MD.

MIERS, B.T.

WIND OSCILLATIONS BETWEEN 30 AND 60 KM OVER WHITE SANDS MISSILE RANGE,
NEW MEXICO

JOURNAL OF THE ATMOSPHERIC SCIENCES (1965) VOL. 22, PAGE 4.

MIERS, B.T.

ZONAL WIND REVERSAL BETWEEN 30 AND 80 KM OVER THE SOUTHWESTERN
UNITED STATES

JOURNAL OF THE ATMOSPHERIC SCIENCES (1963) VOL. 20, PAGES 87-93.

MIERS, B.T., AND N.J. BEYERS

ROCKETSONDE WIND AND TEMPERATURE MEASUREMENTS BETWEEN 30 AND 70 KM FOR
SELECTED STATIONS

JOURNAL OF APPLIED METEOROLOGY (1964) VOL. 3, PAGES 16-26.

MILLER, A.J.

NOTE ON VERTICAL MOTION IN THE LOWER STRATOSPHERE

BEITRAEGE ZUR PHYSIK DER ATMOSPHAERE (CONTRIBUTIONS TO ATMOSPHERIC
PHYSICS) (1967) VOL. 40, PAGES 29-48.

MILLER, A.J., AND K.W. JOHNSON

ON THE INTERACTION BETWEEN THE STRATOSPHERE AND TROPOSPHERE DURING
THE WARMING OF DECEMBER 1967 - JANUARY 1968

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1970) VOL. 96,
PAGES 24-31.

MILLER, A.J., H.M. WOOLF, AND S. TEWELES

QUASI-BIENNIAL CYCLES IN ANGULAR MOMENTUM TRANSPORTS AT 500 MB

JOURNAL OF THE ATMOSPHERIC SCIENCES (1967) VOL. 24, PAGES 298-304.

MORRIS, J.E., AND B.T. MIERS

CIRCULATION DISTURBANCES BETWEEN 25 AND 70 KM ASSOCIATED WITH THE
SUDDEN WARMING OF 1963

JOURNAL OF GEOPHYSICAL RESEARCH (1964) VOL. 69, PAGES 201-214.

MOSSOP, S.C.

STRATOSPHERIC PARTICLES AT 20 KM ALTITUDE

GEOCHIMICA ET COSMOCHIMICA ACTA (1965) VOL. 29, PAGES 201-207.

MOSSOP, S.C.

VOLCANIC DUST COLLECTED AT AN ALTITUDE OF 20 KM

NATURE (1964) VOL. 203, PAGES 824-827.

MUENCH, H.S.

ON THE DYNAMICS OF THE WINTERTIME STRATOSPHERIC CIRCULATION

JOURNAL OF THE ATMOSPHERIC SCIENCES (1965) VOL. 22, PAGES 349-360.

MURGATROYD, R.J.

ESTIMATION FROM GEOSTROPHIC TRAJECTORIES OF HORIZONTAL DIFFUSIVITY IN
THE MID-LATITUDE TROPOSPHERE AND LOWER STRATOSPHERE

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1969) VOL. 95,
PAGES 40-62.

MURGATROYD, R.J.

WINDS AND TEMPERATURES BETWEEN 20 KM AND 100 KM - A REVIEW

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1957) VOL. 83,
PAGES 417-458.

MURGATROYD, R.J.

WIND AND TEMPERATURE TO 50 KM OVER ENGLAND

GEOPHYSICAL MEMOIRS (METEOROLOGICAL OFFICE) (1956) NO. 95, PAGES 1-30.

MURGATROYD, R.J., AND F. SINGLETON

POSSIBLE MERIDIONAL CIRCULATIONS IN THE STRATOSPHERE AND MESOSPHERE
QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1961) VOL. 87,
PAGES 125-135.

NEWELL, R.E.

MODIFICATION OF STRATOSPHERIC PROPERTIES BY TRACE CONSTITUENT CHANGES
NATURE (1970) VOL. 227.

NEWELL, R.E.

PRELIMINARY STUDY OF QUASI-HORIZONTAL EDDY FLUXES FROM METEOROLOGICAL
ROCKET NETWORK DATA
JOURNAL OF THE ATMOSPHERIC SCIENCES (1963B) VOL. 20, PAGES 213-225.

NEWELL, R.E.

TRANSFER THROUGH THE TROPOPAUSE AND WITHIN THE STRATOSPHERE
QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1963) VOL. 89,
PAGES 167-204.

NEWELL, R.E.

THE TRANSPORT OF TRACER SUBSTANCES IN THE ATMOSPHERE AND THEIR
IMPLICATIONS FOR THE GENERAL CIRCULATION OF THE STRATOSPHERE
GEOFISICA PURA E APPLICATA (1961) VOL. 49, PAGES 137-158.

NEWELL, R.E., D.G. VINCENT, AND J.W. KIDSON

INTERHEMISPHERIC MASS EXCHANGE FROM METEOROLOGICAL AND TRACE SUBSTANCE
OBSERVATIONS
TELLUS (1969) VOL. 21, PAGES 641-647.

NEWTON, C.W., AND A.V. PERSSON

STRUCTURAL CHARACTERISTICS OF THE SUBTROPICAL JET STREAM AND CERTAIN
LOWER-STRATOSPHERIC WIND SYSTEMS

TELLUS (1962) VOL. 14, PAGES 221-241.

BOERT, A.H.

THE OBSERVED ANNUAL CYCLE IN THE MERIDIONAL TRANSPORT OF ATMOSPHERIC
ENERGY

JOURNAL OF THE ATMOSPHERIC SCIENCES (1971) VOL. 28, PAGES 325-339.

BOERT, A.H.

ON THE ENERGETICS OF THE MEAN AND EDDY CIRCULATIONS IN THE LOWER
STRATOSPHERE

TELLUS (1964) VOL. 16, PAGES 309-327.

OTTERTMAN, J.

EFFECT OF FINITE-AMPLITUDE PROPAGATION IN THE ROCKET-GRENADE
EXPERIMENT FOR UPPER ATMOSPHERE TEMPERATURE AND WINDS

UNIVERSITY OF MICHIGAN (1958) REPORT DA-36-039-SC-64659, AD 162-059.

PANOFSKY, H.A.

TEMPERATURE AND WIND IN THE LOWER STRATOSPHERE

ADVANCES IN GEOPHYSICS (1961) VOL. 7, PAGES 215-247.

PANOFSKY, H.A., L. KRAWITZ, AND P.R. JULIAN

A STUDY AND EVALUATION OF RELATIONS BETWEEN TROPOSPHERIC AND
STRATOSPHERIC FLOW

PENNSYLVANIA STATE UNIVERSITY (1958) FINAL REPORT N189 (188) 34785A.

PANT, P.S.

CIRCULATION IN THE UPPER ATMOSPHERE

JOURNAL OF GEOPHYSICAL RESEARCH (1956) VOL. 61, PAGES 459-474.

PATON, J.

DIRECT EVIDENCE OF VERTICAL MOTION IN THE ATMOSPHERE AT A HEIGHT OF ABOUT 80 KM PROVIDED BY PHOTOGRAPHS OF NOCTILUCENT CLOUDS

PROCEEDINGS OF THE TORONTO METEOROLOGY CONFERENCE (1953) ROYAL METEOROLOGICAL SOCIETY, LONDON, PAGES 31-33.

PAVLOVSKAYA, A.A.

INTERSEASONAL VARIATIONS OF ATMOSPHERIC CIRCULATION IN THE UPPER TROPOSPHERE AND LOWER STRATOSPHERE

TRUDY CENTRAL FESTG. INST. (1961) MOSCOW, NO. 104, PAGES 54-88.

PETERSON, J.T., AND R.A. BRYSON

ATMOSPHERIC AEROSOLS: INCREASED CONCENTRATIONS DURING THE LAST DECADE
SCIENCE (1968) VOL. 162, PAGES 120-121.

POETZSCHKE, H.

WIND DETERMINATION FROM AN AEROBEE FIRING

JOURNAL OF GEOPHYSICAL RESEARCH (1960) VOL. 65, PAGES 368-369.

QUIROZ, R.S., AND A.J. MILLER

NOTE ON THE SEMI-ANNUAL WIND VARIATION IN THE EQUATORIAL STRATOSPHERE

MONTHLY WEATHER REVIEW (1967) VOL. 95, PAGES 635-641.

RAKIPOVA, L.P.

POSSIBLE EFFECT OF DUST ON VERTICAL AIR MOVEMENTS AND ON ISOTHERMY IN THE STRATOSPHERE

IZVESTIJA AKADEMIJI NAUK SSSR (1947) VOL. 11, PAGE 15.

RAPP, R.R.

THE ACCURACY OF WINDS DERIVED BY THE RADAR TRACKING OF CHAFF AT HIGH ALTITUDES

JOURNAL OF METEOROLQGY (1960) VOL. 17, PAGES 507-514.

REED, J.W.

OZONOSPHERE WINDS AND TEMPERATURES FROM ACOUSTIC OBSERVATIONS OF 1955 ATOMIC TESTS

SANDIA CORPORATION (1956) ALBUQUERQUE, TECH. MEMO., 14 PAGES.

REED, R.J.

ON THE CAUSE OF THE 26-MONTHS PERIODICITY IN THE EQUATORIAL STRATOSPHERIC WINDS

PROCEEDINGS OF THE INTERNATIONAL SYMPOSIUM ON STRATOSPHERIC AND MESOSPHERIC CIRCULATION (1963) INST. METEOROL. GEOPHYS., FREIEN UNIV., BERLIN, PAGES 245-259.

REED, R.J.

THE ROLE OF VERTICAL MOTIONS IN OZONE-WEATHER RELATIONSHIPS

JOURNAL OF METEOROLQGY (1950) VOL. 7, PAGES 263-267.

REED, R.J.

A STUDY OF A CHARACTERISTIC TYPE OF UPPER-LEVEL FRONTOGENESIS
JOURNAL OF METEOROLOGY (1955) VOL. 12, PAGES 226-237.

REED, R.J.

WIND AND TEMPERATURE OSCILLATIONS IN THE TROPICAL STRATOSPHERE
TRANSACTIONS OF THE AMERICAN GEOPHYSICAL UNION (1962) VOL. 43,
PAGES 105-109.

REED, R.J., AND K.E. GERMAN

A CONTRIBUTION TO THE PROBLEM OF STRATOSPHERIC DIFFUSION BY LARGE-SCALE
MIXING
MONTHLY WEATHER REVIEW (1965) VOL. 93, PAGES 313-321.

REED, R.J., AND F. SANDERS

AN INVESTIGATION OF THE DEVELOPMENT OF A MIDTROPOSPHERIC FRONTAL ZONE
JOURNAL OF METEOROLOGY (1953) VOL. 10, PAGES 338-349.

REED, R.J., J.M. MERCER, AND R.V. CORMIER

A CLIMATOLOGY OF WIND AND TEMPERATURES IN THE TROPICAL STRATOSPHERE
BETWEEN 100 MB AND 10 MB
U.S. NAVY WEATHER RESEARCH FACILITY (1964) NORFOLK, VIRGINIA,
NWRP 26-0564-092, 56 PAGES.

REGULA, W.

TEMPERATUREN UND WINDE IN DER OBEREN STRATOSPHERE
METEOROL. RUNDSCHAU (1949) VOL. 2, PAGES 267-270.

REISIG, G.

DYNAMIC WIND MEASUREMENTS INTO THE STRATOSPHERE AND INDICATIONS ON THE
STRUCTURE OF THE WIND FIELD

BULLETIN OF THE AMERICAN METEOROLOGICAL SOCIETY (1958) VOL. 39, PAGE
436.

REISIG, G.H.P.

INSTANTANEOUS AND CONTINUOUS WIND MEASUREMENTS UP TO THE HIGHER
STRATOSPHERE

JOURNAL OF METEOROLOGY (1956) VOL. 13, PAGES 448-455.

REITER, E.R.

ATMOSPHERIC TRANSPORT PROCESSES, PART I: ENERGY TRANSFERS AND
TRANSFORMATIONS

NATIONAL TECHNICAL INFORMATION SERVICE (1969) REPORT NO. TID-24868,
U.S. DEPARTMENT OF COMMERCE, SPRINGFIELD, VIRGINIA.

REITER, E.R.

ATMOSPHERIC TRANSPORT PROCESSES, PART II: CHEMICAL TRACERS

NATIONAL TECHNICAL INFORMATION SERVICE (1971) REPORT NO. TID-25314,
U.S. DEPARTMENT OF COMMERCE, SPRINGFIELD, VIRGINIA, 388 PAGES.

REITER, E.R.

NATURE AND OBSERVATION OF HIGH-LEVEL TURBULENCE ESPECIALLY IN CLEAR AIR

COLORADO STATE UNIVERSITY (1962) FORT COLLINS, COLORADO, CONTRACT
N189(188)55120A, 28 PAGES.

REITER, E.R., M.F. GLASSER, AND J.D. MAHLMAN

THE ROLE OF THE TROPOPAUSE IN STRATOSPHERIC-TROPOSPHERIC EXCHANGE PROCESSES

ATMOSPHERIC SCIENCE PAPER NUMBER 107 (1967) COLORADO STATE UNIVERSITY, FORT COLLINS, PAGE 80.

RICHARDSON, J.M., AND W.B. KENNEDY

ATMOSPHERIC WINDS AND TEMPERATURES TO 50 KILOMETERS ALTITUDE AS DETERMINED BY ACOUSTICAL PROPAGATION STUDIES

JOURNAL OF THE ACOUSTICAL SOCIETY OF AMERICA (1952) VOL. 24, PAGES 731-741.

ROSEN, J.M.

STRATOSPHERIC DUST AND ITS RELATIONSHIP TO METEORIC INFLUX

SPACE SCIENCE REVIEW (1969) VOL. 9, PAGES 59-89.

SAWYER, J.S.

QUASI-PERIODIC WIND VARIATIONS WITH HEIGHT IN THE LOWER STRATOSPHERE

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1961) VOL. 87, PAGES 24-33.

SCHERHAG, R.

UBER DIE LUFTDRUCK-, TEMPERATUR- AND WINSCHWANKUNGEN IN DER STRATOSPHERE

ABHANDLUNGEN MATH-NATURW. KL. DER AKADEMIE DER WISSENSCHAFTEN, MAINZ (1959) PAGES 86-91.

SHEPPARD, P.A.

ATMOSPHERIC TRACERS AND THE STUDY OF THE GENERAL CIRCULATION OF THE
ATMOSPHERE

REPORTS ON PROGRESS IN PHYSICS (1963) VOL. 26, PAGES 213-267.

SMITH, L.B.

THE MEASUREMENT OF WINDS BETWEEN 100,000 AND 300,000 FEET BY USE OF
CHAFF ROCKETS

JOURNAL OF METEOROLÖGY (1960) VOL. 17, PAGES 296-310.

SMITH, L.B.

MONTHLY OBSERVATIONS OF WINDS BETWEEN 150,000 AND 300,000 FT OVER A ONE-
YEAR PERIOD

JOURNAL OF GEOPHYSICAL RESEARCH (1960) VOL. 65, PAGE 2524.

SMITH, R.M.

A PREVIEW ON THE DETERMINATION OF MASS RETURN FLOW OF AIR AND WATER
VAPOR INTO THE STRATOSPHERE USING TRITIUM AS A TRACER

TELLUS (1968) VOL. 20, PAGES 76-81.

SMITH, W., L. KATCHEN, P. SACHER, P. SWARTZ, AND J. THEON

TEMPERATURE, PRESSURE, DENSITY, AND WIND MEASUREMENTS WITH THE ROCKET
GRENADE EXPERIMENT, 1960-1963.

NASA (NATIONAL AERONAUTICS AND SPACE ADMINISTRATION) (1964) TECHNICAL
REPORT TR-R-211.

STALEY, D.O.

EVALUATION OF POTENTIAL-VORTICITY CHANGES NEAR THE TROPOPAUSE AND THE RELATED VERTICAL MOTIONS, VERTICAL ADVECTION OF VORTICITY, AND TRANSFER OF RADIOACTIVE DEBRIS FROM STRATOSPHERE TO TROPOSPHERE

JOURNAL OF METEOROLOGY (1960) VOL. 17, PAGES 591-620.

STALEY, D.O.

ON THE MECHANISM OF MASS AND RADIOACTIVITY TRANSPORT FROM STRATOSPHERE TO TROPOSPHERE

JOURNAL OF THE ATMOSPHERIC SCIENCES (1962) VOL. 19, PAGES 450-467.

STOLOV, H.L.

TIDAL WIND FIELDS IN THE ATMOSPHERE

JOURNAL OF METEOROLOGY (1955) VOL. 12, PAGES 117-140.

STROUD, W.G., W. NORDBERG, AND J.R. WALSH

ATMOSPHERIC TEMPERATURE AND WINDS BETWEEN 30 AND 80 KM

JOURNAL OF GEOPHYSICAL RESEARCH (1956) VOL. 61, PAGES 45-56.

STROUD, W.G., W. NORDBERG, W.R. BANDEEN, F.L. BARTMAN, AND R. TITUS

ROCKET-GRENADE MEASUREMENTS OF TEMPERATURES AND WINDS IN THE MESOSPHERE OVER CHURCHILL, CANADA

JOURNAL OF GEOPHYSICAL RESEARCH (1960) VOL. 61, PAGES 2307-2323.

SUTTON, W.G.I.

ON THE EQUILIBRIUM OF DIFFUSION IN A TURBULENT MEDIUM
PROCEEDINGS OF THE ROYAL SOCIETY (1943) VOL. A182, PAGES 48-75.

TEWELES, S.

STRUCTURE AND CIRCULATION OF THE STRATOSPHERE
TRANSACTIONS OF THE AMERICAN GEOPHYSICAL UNION (1959) VOL. 40, PAGES
84-88.

VAN MIEGHEM, J.

L'EQUATION AUX DERIVEES PARTIELLES DE LA PRESSION DE PERTURBATION
ASSOCIEE AUX ONDULATIONS DE GRANDE LONGUEUR D'ONDE DU COURANT
GEOSTROPHIQUE ZONAL
INST. ROY. METEOROL. BELG. MEM. (1950) VOL. 39, PAGES 1-45.

VERYARD, R.G.

FLUCTUATIONS IN STRATOSPHERIC WINDS OVER AUSTRALIA
THE METEOROLOGICAL MAGAZINE (1961) VOL. 90, PAGE 295.

VERYARD, R.G., AND R.A. EBDON

FLUCTUATIONS IN TROPICAL STRAOSPHERIC WINDS
THE METEOROLOGICAL MAGAZINE (1961) VOL. 90, PAGES 125-143.

VERYARD, R.G., AND R.A. EBDON

THE 26-MONTH TROPICAL STRATOSPHERIC WIND OSCILLATION AND POSSIBLE
CAUSES
PROCEEDINGS OF THE INTERNATIONAL SYMPOSIUM ON STRATOSPHERIC AND
MESOSPHERIC CIRCULATION (1963) INST. METEOROL. GEOPHYS., FREIEN UNIV.,
BERLIN, PAGES 225-245.

VINCENT, D.G.

MEAN MERIDIONAL CIRCULATION IN THE NORTHERN HEMISPHERE LOWER STRATOSPHERE DURING 1964 AND 1965

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1968) VOL. 94, PAGES 333-349.

WARFIELD, C.N.

TENTATIVE TABLES FOR THE PROPERTIES OF THE UPPER ATMOSPHERE

NAT. ADV. COMM. TECH. NOTES NO. 1200 (1947).

WEBB, W.L.

THE DYNAMIC STRATOSPHERE

ASTRONAUTICAL AEROSPACE ENGINEERING (1964) VOL. 2, PAGES 62-68.

WEGE, K.

TEMPERATUR- UND STRÖMUNGSVERHÄLTNISSE IN DER STRATOSPHERE ÜBER DER NORDHALBKUGEL

METEOROL. ABHANDLUNGEN (1957) INST. METEOROL. GEOPHYS., FREIEN UNIV., BERLIN, VOL. 5, 145 PAGES.

WEINERT, R.A.

THE MOVEMENT AND DISPERSION OF VOLCANIC DUST FROM THE ERUPTION OF MOUNT AGUNG

AUSTRALIAN METEOROLOGICAL MAGAZINE (1967) VOL. 15, PAGES 225-229.

WEISNER, A.G.

THE DETERMINATION OF TEMPERATURES AND WINDS ABOVE THIRTY KILOMETERS
ROCKET EXPLORATION OF THE UPPER ATMOSPHERE (1954) (R.L.F. BOYD AND
M.J. SEATON, EDITORS), PERGAMON PRESS, OXFORD, PAGES 133-142.

WEISNER, A.G.

MEASUREMENT OF WINDS AT ELEVATIONS OF 30 TO 80 KM BY THE
ROCKET-GRENADE EXPERIMENT

JOURNAL OF METEOROLOGY (1956) VOL. 13, PAGES 30-39.

WENZEL, E.A., I.T. LOH, M.H. NICHOLS, AND L.M. JONES

THE MEASUREMENT OF DIFFUSIVE SEPARATION IN THE UPPER ATMOSPHERE
WORLD DATA CENTER A (1958) IGY ROCKET REPORT NO. 1, PAGES 91-106.

WEXLER, H.

SPREAD OF THE KRAKATOA VOLCANIC DUST CLOUD AS RELATED TO THE HIGH-LEVEL
CIRCULATION

BULLETIN OF THE AMERICAN METEOROLOGICAL SOCIETY (1951) VOL. 32, PAGES
48-51.

WEXLER, H.

SOME ASPECTS OF STRATOSPHERIC AND MESOSPHERIC TEMPERATURE AND WIND
PATTERNS

SPACE RESEARCH I (1961) (H. KALLMAN BIJL, EDITOR), NORTH-HOLLAND
PUBLICATIONS, AMSTERDAM, PAGES 1083-1093.

WEXLER, H., AND W.B. MORELAND

WINDS AND TEMPERATURES IN THE ARCTIC STRATOSPHERE

POLAR ATMOSPHERE SYMPOSIUM, JULY 1956 (1958) PERGAMON PRESS, OXFORD,
PART 1, METEOROL. SECTION, PAGES 71-84.

WOODBIDGE, D.D.

IONOSPHERIC WINDS

JOURNAL OF GEOPHYSICAL RESEARCH (1962) VOL. 67, PAGES 4221-4231.

ADELPHANG, S.I.

AMPLITUDE OF THE ANNUAL TEMPERATURE CYCLE IN THE STRATOSPHERE
JOURNAL OF GEOPHYSICAL RESEARCH (1970) VOL. 75, PAGE 5259.

ANGELL, J.K., AND J. KORSHOVER

THE BIENNIAL WIND AND TEMPERATURE OSCILLATIONS OF THE EQUATORIAL
STRATOSPHERE AND THEIR POSSIBLE EXTENSION TO HIGHER ALTITUDES
MONTHLY WEATHER REVIEW (1962) VOL. 90, PAGES 127-132.

APPLEMAN, H.S.

EFFECT OF SUPERSONIC AIRCRAFT ON CIRRUS FORMATION AND CLIMATE
AMS/AIAA CONFERENCE ON AEROSPACE METEOROLOGY (1966) PAPER NO. 66-369.

APPLETON, H.

THE FORMATION OF EXHAUST CONDENSATION TRAILS BY JET AIRCRAFT
BULLETIN OF THE AMERICAN METEOROLOGICAL SOCIETY (1953) VOL. 34, PAGE 14.

ARNOLD, A., AND M.J. LOWENTHAL

A SIXTEEN-MONTH SERIES OF MID-STRATOSPHERIC TEMPERATURE MEASUREMENTS
JOURNAL OF METEOROLOGY (1959) VOL. 16, PAGES 626-629.

BALLARD, J.C.

ON THE INTERPRETATION OF TEMPERATURE MEASUREMENTS MADE AT HIGH LEVELS
MONTHLY WEATHER REVIEW (1941) VOL. 69, PAGES 33-40.

BANDEEN, W.R., R.M. GRIFFITH, AND W. NORDBERG

MEASUREMENTS OF TEMPERATURES, DENSITIES, PRESSURES, AND WINDS OVER FORT
CHURCHILL, CANADA (BY MEANS OF THE ROCKET GRENADE EXPERIMENT)

U.S. ARMY SIGNAL RESEARCH AND DEVELOPMENT LABORATORIES TR 2076, 71
PAGES.

BANNON, J.K.

STRATOSPHERIC TEMPERATURES OVER THE ANTARCTIC

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1958) VOL. 84,
PAGES 434-436.

BANNON, J.K., AND A. GILCHRIST

A STATISTICAL STUDY OF THE VARIATION OF TEMPERATURE IN THE TROPOSPHERE
AND LOWER STRATOSPHERE

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1956) VOL. 82,
PAGES 58-74.

BARRETT, E.W., R.F. PUESCHEL, H.K. WEICKMANN, AND P.M. KUHN

INADVERTENT MODIFICATION OF WEATHER AND CLIMATE BY ATMOSPHERIC POLLUTANTS

ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION RESEARCH LABORATORIES (1970)
ESSA TECHNICAL REPORT ERL 185-APCL 15, 103 PAGES.

BARTMAN, F.L., L.W. CHANEY, L.M. JONES, AND V.C. LIU

UPPER-AIR DENSITY AND TEMPERATURE BY THE FALLING SPHERE METHOD

JOURNAL OF APPLIED PHYSICS (1956) VOL. 27, PAGES 706-712.

RATES, D.R.

THE TEMPERATURE OF THE UPPER ATMOSPHERE

PROCEEDINGS OF THE PHYSICAL SOCIETY (1951) LONDON, VOL. B64, PAGES 805-821.

BELMONT, A.D.

APPARENT DIURNAL VARIATIONS OF ARCTIC STRATOSPHERIC TEMPERATURES

TRANSACTIONS OF THE AMERICAN GEOPHYSICAL UNION (1957) VOL. 38, PAGES 462-468.

BENSON, S.W., AND A.E. AXWORTHY, JR.

MECHANISM OF THE GAS PHASE, THERMAL DECOMPOSITION OF OZONE

JOURNAL OF CHEMICAL PHYSICS (1957) VOL. 26, PAGES 1718-1726.

BERKOFSKY, L., AND R. SHAPIRO

A DYNAMICAL MODEL FOR INVESTIGATING THE EFFECTS OF PERIODIC HEAT SOURCES ON THE EQUATORIAL STRATOSPHERE

U.S. AIR FORCE (1964) CAMBRIDGE RESEARCH LABORATORIES, L.G. HANSCOM FIELD, MASSACHUSETTS, ENVIRONMENTAL RESEARCH PAPERS, NO. 57.

BEYERS, N.J., AND B.T. MIERS

DIURNAL TEMPERATURE IN THE ATMOSPHERE BETWEEN 30 AND 60 KM OVER WHITE SANDS MISSILE RANGE, NEW MEXICO

JOURNAL OF ATMOSPHERIC SCIENCE (1965) VOL. 22, PAGE 3.

BEYERS, N.J., AND O.W. THIELF

PERFORMANCE CHARACTERISTICS OF SYSTEMS FOR HIGH ALTITUDE WIND AND
TEMPERATURE OBSERVATIONS

INSTR. SOC. AM. CONF. (1961) PREPRINT 170-LA-61-1.

BEYERS, N.J., O.W. THIELE, AND N.K. WAGNER

PERFORMANCE CHARACTERISTICS OF METEOROLOGICAL ROCKET WIND AND TEMPERATURE
SENSORS

U.S. ARMY ELECTRONICS RESEARCH AND DEVELOPMENT ACTIVITY (1962)
WHITE SANDS MISSILE RANGE, NEW MEXICO, TR SELWS-M-4.

BIGG, E.K.

THE DETECTION OF ATMOSPHERIC DUST AND TEMPERATURE INVERSIONS BY
TWILIGHT SCATTERING

JOURNAL OF METEOROLOGY (1956) VOL. 13, PAGE 262.

BRASEFIELD, C.J.

WINDS AND TEMPERATURES IN THE LOWER STRATOSPHERE

JOURNAL OF METEOROLOGY (1950) VOL. 7, PAGES 66-69.

BREILAND, J.G.

COMPARISON OF THE VERTICAL DISTRIBUTION OF THERMAL STABILITY IN THE
LOWER STRATOSPHERE WITH THE VERTICAL DISTRIBUTION OF ATMOSPHERIC OZONE

JOURNAL OF THE ATMOSPHERIC SCIENCES (1967) VOL. 24, PAGES 569-576.

BUFALINI, J.J., AND A.P. ALTSHULIER

SYNERGISTIC EFFECTS IN THE PHOTOOXIDATION OF MIXED HYDROCARBONS
ENVIRONMENTAL SCIENCE AND TECHNOLOGY (1967) VOL. 1, PAGES 133-138.

BYRON-SCOTT, R.

A STRATOSPHERIC GENERAL CIRCULATION EXPERIMENT INCORPORATING DIABATIC
HEATING AND OZONE PHOTOCHEMISTRY

MCGILL UNIVERSITY (1967) ARCTIC METEOROLOGY RESEARCH GROUP, DEPARTMENT
OF METEOROLOGY, PUBLICATIONS IN METEOROLOGY NO. 87 (AFCR-67-0344),
367 PAGES.

CHIU, W.C.

STUDIES OF THE PROPERTIES OF THE WIND AND TEMPERATURE FIELD OF THE
UPPER TROPOSPHERE AND LOWER STRATOSPHERE

NEW YORK UNIVERSITY (1960) FINAL REPORT, CONTRACT AF19(604)-1755.

CHIU, W.C., AND R.S. GREENFIELD

THE RELATIVE IMPORTANCE OF DIFFERENT HEAT-EXCHANGE PROCESSES IN THE
LOWER STRATOSPHERE

JOURNAL OF METEOROLOGY (1959) VOL. 16, PAGES 271-280.

CHIU, W.C., S. HELLERMAN, AND R.S. GREENFIELD

MEAN MONTHLY TEMPERATURE, PRESSURE AND WIND FIELDS IN THE LOWER
STRATOSPHERE AND UPPER TROPOSPHERE OVER NORTH AMERICA

NEW YORK UNIVERSITY (1956) REPORT UNDER SIGNAL CORPS CONTRACT
DA-36-039-SC-64673.

CONOVER, W.C.

AN INSTANCE OF A STRATOSPHERIC EXPLOSIVE WARMING
JOURNAL OF METEOROLOGY (1961) VOL. 18, PAGES 410-413.

CONOVER, W.C., AND C.J. WENTZEIN

WINDS AND TEMPERATURES TO FORTY KILOMETERS
JOURNAL OF METEOROLOGY (1955) VOL. 12, PAGES 160-164.

COX, E.

UPPER ATMOSPHERE TEMPERATURES FROM THE HELGOLAND BIG BANG
BULLETIN OF THE AMERICAN METEOROLOGICAL SOCIETY (1948) VOL. 29, PAGES
78-80.

COX, E.

UPPER ATMOSPHERE TEMPERATURES FROM REMOTE SOUND MEASUREMENTS
AMERICAN JOURNAL OF PHYSICS (1948) VOL. 16, PAGES 469-474.

COX, E.F., J.V. ATANASOFF, R.L. SNAVELY, D.W. BEECHER, AND
J. BROWN

UPPER-ATMOSPHERE TEMPERATURES FROM HEGOLAND BIG BANG
JOURNAL OF METEOROLOGY (1949) VOL. 6, PAGES 300-311.

CRAIG, R.A.

DYNAMIC ANALYSIS OF A STRATOSPHERIC WARMING
JOURNAL OF GEOPHYSICAL RESEARCH (1960) VOL. 65, PAGE 2485.

CRAIG, R.A.

RELATIVE TEMPERATURE CHANGES IN THE OZONE LAYER
COMPENDIUM OF METEOROLOGY (1951) PAGES 292-302.

CRAIG, R.A., AND W.S. HERING

THE STRATOSPHERIC WARMING OF JANUARY-FEBRUARY 1957
JOURNAL OF METEOROLGY (1959) VOL. 16, PAGES 91-107.

CRAIG, R.A., AND M.A. LATEEF

VERTICAL MOTION DURING THE 1957 STRATOSPHERIC WARMING
JOURNAL OF GEOPHYSICAL RESEARCH (1962) VOL. 67, PAGES 1839-1854.

CRAIG, R.A., AND G. OHRING

THE TEMPERATURE DEPENDENCE OF OZONE RADIATIONAL HEATING IN THE VICINITY
OF THE MESOPEAK
JOURNAL OF METEOROLGY (1958) VOL. 15, PAGES 59-62.

CRARY, A.P.

ANNUAL VARIATIONS OF UPPER AIR WINDS AND TEMPERATURES IN ALASKA FROM
ACOUSTICAL MEASUREMENTS
JOURNAL OF METEOROLOGY (1953) VOL. 10, PAGES 380-389.

CRARY, A.P.

REVISION OF HIGH LEVEL WIND TEMPERATURES IN BERMUDA
JOURNAL OF METEOROLGY (1954) VOL. 11, PAGE 257.

CRARY, A.P.

STRATOSPHERE WINDS AND TEMPERATURES FROM ACOUSTICAL PROPAGATION STUDIES
JOURNAL OF METEOROLOGY (1950) VOL. 7, PAGES 233-242.

CRARY, A.P.

STRATOSPHERE WINDS AND TEMPERATURES IN LOW LATITUDES FROM ACOUSTICAL
PROPAGATION STUDIES
JOURNAL OF METEOROLOGY (1952) VOL. 9, PAGES 93-109.

CRARY, A.P., AND V.C. BUSHNELL

ANNUAL VARIATIONS OF UPPER AIR WINDS AND TEMPERATURES IN ALASKA FROM
ACOUSTICAL MEASUREMENTS
JOURNAL OF METEOROLOGY (1953) VOL. 10, PAGES 380-389.

CRARY, A.P., AND V.C. BUSHNELL

DETERMINATION OF HIGH-ALTITUDE WINDS AND TEMPERATURES IN THE ROCKY
MOUNTAIN AREA BY ACOUSTICAL SOUNDINGS, OCTOBER 1951
JOURNAL OF METEOROLOGY (1955) VOL. 12, PAGES 463-471.

CRARY, A.P., W.B. KENNEDY, AND V.C. BUSHNELL

ATMOSPHERIC WINDS AND TEMPERATURES AT HEIGHTS UP TO 50 KM AS
DETERMINED BY ACOUSTICAL PROPAGATION STUDIES
PROCEEDINGS OF THE TORONTO METEOROLOGICAL CONFERENCE, 1953 (1954)
THE ROYAL METEOROLOGICAL SOCIETY, LONDON, PAGES 9-13.

CURTIS, A.R.

THE COMPUTATION OF RADIATIVE HEATING RATES IN THE ATMOSPHERE
PROCEEDINGS OF THE ROYAL SOCIETY (1956) VOL. A236, PAGES 156-159.

CURTIS, A.R., AND R.M. GOODY

THERMAL RADIATION IN THE UPPER ATMOSPHERE
PROCEEDINGS OF THE ROYAL SOCIETY (1956) VOL. A236, PAGES 193-206.

DAVIS, P.A.

AN ANALYSIS OF THE ATMOSPHERIC HEAT BUDGET
JOURNAL OF THE ATMOSPHERIC SCIENCES (1963) VOL. 20, PAGES 5-22.

DAVIS, P.A.

THE DIURNAL VARIATION OF TEMPERATURE NEAR THE TROPOPAUSE DUE TO A
DIURNAL VARIATION OF TERRESTRIAL RADIATION
NEW YORK UNIVERSITY (1960) FINAL REPORT, CONTRACT AF19 (604)-1755.

DOPPLICK, T.G.

GLOBAL RADIATIVE HEATING OF THE EARTH'S ATMOSPHERE
MASSACHUSETTS INSTITUTE OF TECHNOLOGY (1970) DEPARTMENT OF METEOROLOGY,
PLANETARY CIRCULATIONS PROJECT REPORT NO. 24, 128 PAGES.

DOW, W.G., AND N.W. SPENCER

MEASURES OF AMBIENT PRESSURE AND TEMPERATURE OF THE UPPER
ATMOSPHERE
UNIVERSITY OF MICHIGAN (1953) FINAL REPORT AF19(122)-55.

DUTSCH, H.U.

OZONE AND TEMPERATURE IN THE STRATOSPHERE

PROCEEDINGS OF THE INTERNATIONAL SYMPOSIUM ON STRATOSPHERIC AND
MESOSPHERIC CIRCULATION (1963) INST. METEOROLOGICAL GEOPHYSICS, FREIEN
UNIVERSITY, BERLIN, PAGES 271-291.

ELSASSER, W.H.

HEAT TRANSFER BY INFRARED RADIATION IN THE ATMOSPHERE

HARVARD METEOROLOGICAL STUDIES NO.6 (1942) PAGES 1-107.

ELTERMAN, L.

SEASONAL TRENDS OF TEMPERATURE, DENSITY, AND PRESSURE TO 67.6 KM
OBTAINED WITH THE SEARCHLIGHT PROBING TECHNIQUE

JOURNAL OF GEOPHYSICAL RESEARCH (1954) VOL. 59, PAGES 351-358.

ELTERMAN, L.

SEASONAL TRENDS OF TEMPERATURE, DENSITY, AND PRESSURE IN THE
STRATOSPHERE OBTAINED WITH THE SEARCHLIGHT-PROBING TECHNIQUE

GEOPHYSICAL RESEARCH PAPERS (1954) NO. 29, PAGES 1-70.

ELTERMAN, L.

A SERIES OF STRATOSPHERIC TEMPERATURE PROFILES OBTAINED WITH THE
SEARCHLIGHT-PROBING TECHNIQUE

JOURNAL OF GEOPHYSICAL RESEARCH (1953) VOL. 58, PAGE 519.

FARKAS, E.

SPRINGTIME TEMPERATURE CHANGES IN THE ANTARCTIC STRATOSPHERE

NEW ZEALAND JOURNAL OF GEOLOGICAL GEOPHYSICS (1961) VOL. 4, PAGES
372-386.

REFERENCE, M., J.R. STROUD, J.R. WALSH, AND A.G. WEISNER

MEASUREMENT OF TEMPERATURES AT ELEVATIONS OF 30 TO 80 KM BY THE ROCKET
GRENADE EXPERIMENT

JOURNAL OF METEOROLOGY (1956) VOL. 13, PAGES 5-12.

FROGNER, E.

TEMPERATURE CHANGES ON A LARGE SCALE IN THE ARCTIC WINTER STRATOSPHERE
AND THEIR PROBABLE EFFECTS ON THE TROPOSPHERIC CIRCULATION

GEOFYSISKE PUBLIKASJONER (1962) NORSKE VIDENSKAPS-AKAD. ØSLO, VOL. 23,
PAGES 1-83.

GODSON, W.L.

THE EVALUATION OF INFRA-RED RADIATIVE FLUXES DUE TO ATMOSPHERIC WATER
VAPOR

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1953) VOL. 79,
PAGES 367-379.

GODSON, W.L., AND R. LEE

HIGH LEVEL FIELDS OF WIND AND TEMPERATURE OVER THE CANADIAN ARCTIC

BEITRAEGE ZUR PHYSIK DER ATMOSPHAERE (1958) VOL. 31, PAGES 40-68.

GOLD, E.

THE ISOTHERMAL LAYER OF THE ATMOSPHERE AND ATMOSPHERIC RADIATION
PROCEEDINGS OF THE ROYAL SOCIETY (1909) VOL. A82, PAGES 43-70.

GOODY, R.M.

THE THERMAL EQUILIBRIUM AT THE TROPOPAUSE AND THE TEMPERATURE OF THE
LOWER STRATOSPHERE
PROCEEDINGS OF THE ROYAL SOCIETY (1949) VOL. A197, PAGES 487-505.

GOWAN, E.H.

NIGHT COOLING OF THE OZONOSPHERE
PROCEEDINGS OF THE ROYAL SOCIETY (1947) VOL. A190, PAGES 227-231.

GOWAN, E.H.

OZONOSPHERE TEMPERATURE UNDER RADIATIVE EQUILIBRIUM
PROCEEDINGS OF THE ROYAL SOCIETY (1947) VOL. A190, PAGES 219-226.

GUTENBERG, B.

THE VELOCITY OF SOUND WAVES AND THE TEMPERATURE IN THE STRATOSPHERE
IN SOUTHERN CALIFORNIA
BULLETIN OF THE AMERICAN METEOROLOGICAL SOCIETY (1939) VOL. 20, PAGES
192-201.

HANSON, K.J.

A CASE STUDY OF THE EXPLOSIVE STRATOSPHERIC WARMING OVER THE ANTARCTIC,
OCTOBER 1958
ANTARCTIC METEOROLOGY (1958) PERGAMON PRESS, OXFORD, PAGES 128-137.

HANSON, K.J.

EXPLOSIVE WARMING IN THE ANTARCTIC STRATOSPHERE

TRANSACTIONS OF THE AMERICAN GEOPHYSICAL UNION (1960) VOL. 41, PAGES 384-388.

HARRIS, I., AND W. PRIESTER

TIME-DEPENDENT STRUCTURE OF THE UPPER ATMOSPHERE

JOURNAL OF THE ATMOSPHERIC SCIENCES (1962) VOL. 19, PAGES 286-301.

HARRIS, M.F., F.G. FINGER, AND S. TEWELES

DIURNAL VARIATION OF WIND, PRESSURE, AND TEMPERATURE IN THE TROPOSPHERE AND STRATOSPHERE OVER THE AZORES

JOURNAL OF THE ATMOSPHERIC SCIENCES (1962) VOL. 19, PAGES 136-149.

HAVENS, R.J., R.T. KOLL, AND H.E. LAGOW

THE PRESSURE, DENSITY, AND TEMPERATURE OF THE EARTH'S ATMOSPHERE TO 160 KILOMETERS

JOURNAL OF GEOPHYSICAL RESEARCH (1952) VOL. 57, PAGES 59-72.

HELLIWELL, N.C., J.M. MACKENZIE, AND M.J. KERLEY

SOME FURTHER OBSERVATIONS FROM AIRCRAFT OF FROST POINT AND TEMPERATURE UP TO 50,000 FEET

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1957) VOL. 83, PAGES 257-262.

HERING, W.S., C.N. TOUART, AND T.R. BORDEN, JR.

OZONE HEATING AND RADIATIVE EQUILIBRIUM IN THE LOWER STRATOSPHERE
JOURNAL OF THE ATMOSPHERIC SCIENCES (1967) VOL. 24, PAGES 402-413.

HERMAN, B.M., S.R. BROWNING, AND R.J. CURRAN

THE EFFECT OF ATMOSPHERIC AEROSOLS ON SCATTERED SUNLIGHT
JOURNAL OF THE ATMOSPHERIC SCIENCES (1971) VOL. 28, PAGES 419-428.

JOHNSON, F.S.

HIGH-ALTITUDE DIURNAL TEMPERATURE CHANGES DUE TO OZONE ABSORPTION
BULLETIN OF THE AMERICAN METEOROLOGICAL SOCIETY (1953) VOL. 34, PAGES
106-110.

JOHNSON, F.S.

TEMPERATURES IN THE HIGH ATMOSPHERE
ANNALES DE GEOPHYSIQUE (1958) VOL. 14, PAGES 94-108.

JONES, L.M.

MEASURING UPPER AIR STRUCTURE
ASTRONAUTICS (1959) VOL. 2, PAGES 29-50.

JONES, L.M., J.W. PETERSON, F.J. SCHAEFER, AND H.F. SCHULTÉ

UPPER-AIR DENSITY AND TEMPERATURE - SOME VARIATIONS AND AN ABRUPT
WARMING IN THE MESOSPHERE
JOURNAL OF GEOPHYSICAL RESEARCH (1962) VOL. 64, PAGES 2331-2340.

JULIAN, P.R.

SOME ASPECTS OF TROPOSPHERIC CIRCULATION DURING MIDWINTER
STRATOSPHERIC WARMING EVENTS

JOURNAL OF GEOPHYSICAL RESEARCH (1965) VOL. 70, PAGES 957-768.

JULIAN, P.R.

SOME CORRELATIONS OF TROPOSPHERIC AND STRATOSPHERIC PRESSURES AND
TEMPERATURES IN MID AND HIGH LATITUDES

PROCEEDINGS OF THE INTERNATIONAL SYMPOSIUM ON STRATOSPHERIC AND
MESOSPHERIC CIRCULATION (1963) PAGES 63-76.

JULIAN, P.R., AND K. LABITZKE-BEHR

A STUDY OF ATMOSPHERIC ENERGETICS DURING THE JANUARY-FEBRUARY 1963
STRATOSPHERIC WARMING

JOURNAL OF THE ATMOSPHERIC SCIENCES (1965) VOL. 22, PAGES 597-610.

KAPLAN, L.D.

THE INFLUENCE OF CARBON DIOXIDE VARIATIONS ON THE ATMOSPHERIC HEAT
BALANCE

TELLUS (1960) VOL. 12, PAGES 204-208.

KELLOGG, W.W.

TEMPERATURES AND MOTIONS OF THE UPPER ATMOSPHERE

PHYSICS AND MEDICINE OF THE UPPER ATMOSPHERE, ALBUQUERQUE (1952)
PAGES 54-74.

KENNEDY, J.S., AND W. NORDBERG

CIRCULATION FEATURES OF THE STRATOSPHERE DERIVED FROM RADIOMETRIC
TEMPERATURE MEASUREMENTS WITH THE TIROS VII SATELLITE

JOURNAL OF THE ATMOSPHERIC SCIENCES (1967) PAGES 711-719.

KENNEDY, W.B., L. BROGAN, AND N.J. SIBLE

FURTHER ACOUSTICAL STUDIES OF ATMOSPHERIC WINDS AND TEMPERATURES AT
ELEVATIONS OF 30 TO 60 KILOMETERS

JOURNAL OF METEOROLOGY (1955) VOL. 12, PAGES 519-532.

KITAOKA, T.

A SHORT COMMENT ON THE RELATION BETWEEN THE INCREASE IN OZONE CONTENT
AND THE INCREASE IN STRATOSPHERIC TEMPERATURES

PROCEEDINGS OF THE INTERNATIONAL SYMPOSIUM ON STRATOSPHERIC AND
MESOSPHERIC CIRCULATION (1963) INSTITUTE OF METEOROLOGY AND GEOPHYSICS,
FREIEN UNIVERSITY, BERLIN, PAGES 313-315.

KOCHANSKI, A.

CIRCULATION AND TEMPERATURE AT 70-100 KILOMETER HEIGHT

JOURNAL OF GEOPHYSICAL RESEARCH (1963) VOL. 69, PAGES 213-226.

KOCHANSKI, A.

CROSS SECTIONS OF THE MEAN ZONAL FLOW AND TEMPERATURE ALONG 80 DEGREES
WEST

JOURNAL OF METEOROLOGY (1955) VOL. 12, PAGES 95-106.

KOCHANSKI, A.

THERMAL STRUCTURE AND VERTICAL MOTION IN THE LOWER STRATOSPHERE
AIR WEATHER SER. TECH. (1954) VOL. 35, PAGES 105-129.

KRIESTER, B.

STRATOSPHERIC WARMINGS

WINDS AND TURBULENCE IN STRATOSPHERE, MESOSPHERE AND IONOSPHERE (1968)
(EDITED BY K. RAWER) JOHN WILEY AND SONS, NEW YORK, PAGES 87-122.

LABITZKE-BEHR, K.

ON THE MUTUAL RELATION BETWEEN STRATOSPHERE AND TROPOSPHERE DURING
PERIODS OF STRATOSPHERIC WARMINGS IN WINTER

JOURNAL OF APPLIED METEOROLOGY (1965) VOL. 14, PAGES 91-99.

LABITZKE-BEHR, K.

UBER MARKANTE ERWARMUNGEN IN DER STRATOSPHERE

METEOROL. ABHANDL. INST. METEOROL. GEOPHYS., FREIEN UNIV., BERLIN (1960)
VOL. 9, 57 PAGES.

LONDON, J.

OZONE VARIATIONS AND THEIR RELATION TO STRATOSPHERIC WARMING

PROCEEDINGS OF THE INTERNATIONAL SYMPOSIUM ON STRATOSPHERIC AND
MESOSPHERIC CIRCULATION (1963) INST. METEOROL. GEOPHYS., FREIEN UNIV.,
BERLIN, PAGES 299-311.

LONDON, J.

RADIATIVE PROPERTIES OF THE STRATOSPHERE

FINAL REPORT (1956) OCTOBER, AF19 (604)-1285, AD 110 220.

LOWENTHAL, M.

ABNORMAL MID-STRATOSPHERIC TEMPERATURES

JOURNAL OF METEOROLOGY (1957) VOL. 14, PAGE 476.

MAEDA, K.

OCCURENCE OF ABRUPT WARMING IN THE STRATOSPHERE AND SOLAR ACTIVITY

PROCEEDINGS OF THE INTERNATIONAL SYMPOSIUM ON STRATOSPHERIC AND
MESOSPHERIC CIRCULATION (1963) INST. METEOROL. GEOPHYS., FREIEN UNIV.,
BERLIN, PAGES 451-506.

MAEDA, K.

ON THE HEATING OF THE POLAR UPPER ATMOSPHERE

NASA (NATIONAL AERONAUTICS AND SPACE ADMINISTRATION) TECHNICAL
REPORT, TR-141.

MANABE, S., AND F. MOELLER

ON THE RADIATIVE EQUILIBRIUM AND HEAT BALANCE OF THE ATMOSPHERE

MONTHLY WEATHER REVIEW (1961) VOL. 89, PAGES 503-532.

MANABE, S., AND R.T. WETHERALD

THERMAL EQUILIBRIUM OF THE ATMOSPHERE WITH A GIVEN DISTRIBUTION OF
RELATIVE HUMIDITY

JOURNAL OF THE ATMOSPHERIC SCIENCES (1967) VOL. 24, PAGES 241-259.

MASTERSON, J.E., W.E. HUBERT, AND T.R. CARR

WIND AND TEMPERATURE MEASUREMENTS IN THE MESOSPHERE BY METEOROLOGICAL
ROCKETS

JOURNAL OF GEOPHYSICAL RESEARCH (1961) VOL. 66, PAGES 2141-2151.

MIERS, B.T., AND N.J. BEYERS

ROCKETSONDE WIND AND TEMPERATURE MEASUREMENTS BETWEEN 30 AND 70 KM FOR
SELECTED STATIONS

JOURNAL OF APPLIED METEOROLOGY (1964) VOL. 3, PAGES 16-26.

MILLER, A.J., AND K.W. JOHNSON

ON THE INTERACTION BETWEEN THE STRATOSPHERE AND TROPOSPHERE DURING
THE WARMING OF DECEMBER 1967 - JANUARY 1968

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1970) VOL. 96,
PAGES 24-31.

MILNE, E.A.

RADIATIVE EQUILIBRIUM: THE INSOLATION OF AN ATMOSPHERE

PHILOSOPHICAL MAGAZINE (1922) VOL. 44, PAGES 872-896.

MORRIS, J.E., AND B.T. MIERS

CIRCULATION DISTURBANCES BETWEEN 25 AND 70 KM ASSOCIATED WITH THE
SUDDEN WARMING OF 1963

JOURNAL OF GEOPHYSICAL RESEARCH (1964) VOL. 69, PAGES 201-214.

MURCRAY, D.C., J. BROOKS, F. MURCRAY, AND C. SHAW

HIGH ALTITUDE INFRARED STUDIES OF THE ATMOSPHERE

JOURNAL OF GEOPHYSICAL RESEARCH (1958) VOL. 63, PAGES 289-299.

MURGATROYD, R.J.

WINDS AND TEMPERATURES BETWEEN 20 KM AND 100 KM - A REVIEW

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1957) VOL. 83,
PAGES 417-458.

MURGATROYD, R.J.

WIND AND TEMPERATURE TO 50 KM OVER ENGLAND

GEOPHYSICAL MEMOIRS (METEOROLOGICAL OFFICE) (1956) NO. 95, PAGES 1-30.

MURGATROYD, R.J., AND R.M. GOODY

SOURCES AND SINKS OF RADIATIVE ENERGY FROM 30 TO 90 KM

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1958) VOL. 84,
PAGES 225-234.

NAZARK, A.

THE TEMPERATURE DISTRIBUTION OF THE UPPER ATMOSPHERE OVER NEW MEXICO

BULLETIN OF THE AMERICAN METEOROLOGICAL SOCIETY (1950) VOL. 31, PAGES 44-50.

NEWELL, H.E., JR.

TEMPERATURES IN THE UPPER ATMOSPHERE

TEMP., MEAS. CONTROL SCI. IND., VOL. II, 3RD SYMP. TEMP.,
WASHINGTON, D.C., 1954 (1955) REINHOLD, NEW YORK, PAGES 429-444.

NEWELL, H.E., JR.

TEMPERATURES AND PRESSURES IN THE UPPER ATMOSPHERE
COMPENDIUM OF METEOROLOGY (1951) PAGES 303-310.

NEWELL, R.E.

MODIFICATION OF STRATOSPHERIC PROPERTIES BY TRACE CONSTITUENT CHANGES
NATURE (1970) VOL. 227.

NEWELL, R.E.

STRATOSPHERIC TEMPERATURE CHANGE FROM THE MT. AGUNG VOLCANIC ERUPTION
OF 1963
JOURNAL OF THE ATMOSPHERIC SCIENCES (1970) VOL. 27, PAGES 977-978.

NEWELL, R.E., D.G. VINCENT, AND J.W. KIDSON

INTERHEMISPHERIC MASS EXCHANGE FROM METEOROLOGICAL AND TRACE SUBSTANCE
OBSERVATIONS
TELLUS (1969) VOL. 21, PAGES 641-647.

NOLT, I.G., T.Z. MARTIN, C.W. WOOD, AND W.M. SINTON

FAR INFRARED ABSORPTION OF THE ATMOSPHERE ABOVE 4.2 KILOMETERS
JOURNAL OF THE ATMOSPHERIC SCIENCES (1971) VOL. 28, PAGES 238-241.

ODER, F.C.E.

THE MAGNITUDE OF RADIATIVE HEATING IN THE LOWER STRATOSPHERE
JOURNAL OF METEOROLOGY (1948) VOL. 5, PAGES 65-67.

OHRING, G.

THE RADIATION BUDGET OF THE STRATOSPHERE

JOURNAL OF METEOROLOGY (1958) VOL. 15, PAGES 440-451.

OTTERMAN, J.

EFFECT OF FINITE-AMPLITUDE PROPAGATION IN THE ROCKET-GRENADE
EXPERIMENT FOR UPPER ATMOSPHERE TEMPERATURE AND WINDS

UNIVERSITY OF MICHIGAN (1958) REPORT DA-36-039-SC-64659, AB 162-059.

PALTRIDGE, G.W., AND S.L. SARGENT

SOLAR AND THERMAL RADIATION MEASUREMENTS TO 32 KM AT LOW SOLAR
ELEVATIONS

JOURNAL OF THE ATMOSPHERIC SCIENCES (1971) VOL. 28, PAGES 242-253.

PANOFSKY, H.A.

TEMPERATURE AND WIND IN THE LOWER STRATOSPHERE

ADVANCES IN GEOPHYSICS (1961) VOL. 7, PAGES 215-247.

PERRY, J.S.

LONG WAVE ENERGY PROCESSES IN THE 1963 SUDDEN STRATOSPHERE WARMING

JOURNAL OF THE ATMOSPHERIC SCIENCES (1967) VOL. 24, PAGES 539-550.

PLASS, G.N.

THE INFLUENCE OF THE 9.6 MICRON OZONE BAND ON THE ATMOSPHERIC INFRA-RED
COOLING RATE

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1956) VOL. 82,
PAGES 30-44.

PLASS, G.N.

THE INFLUENCE OF THE 15 MICRON CARBON-DIOXIDE BAND ON THE ATMOSPHERIC
INFRA-RED COOLING RATE

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1956) VOL. 82,
PAGES 310-324.

PLASS, G.N.

MODELS FOR SPECTRAL BAND ABSORPTION

JOURNAL OF THE OPTICAL SOCIETY OF AMERICA (1958) VOL. 48, PAGES 690-703.

PLASS, G.N.

USEFUL REPRESENTATIONS FOR MEASUREMENTS OF SPECTRAL BAND ABSORPTION

JOURNAL OF THE OPTICAL SOCIETY OF AMERICA (1960) VOL. 50, PAGES 868-875.

PRESSMAN, J.

DIURNAL TEMPERATURE VARIATIONS IN THE MIDDLE ATMOSPHERE

BULLETIN OF THE AMERICAN METEOROLOGICAL SOCIETY (1955) VOL. 36, PAGES
220-223.

QUIROZ, R.S.

THE WARMING OF THE UPPER STRATOSPHERE IN FEBRUARY 1966 AND THE
ASSOCIATED STRUCTURE OF THE MESOSPHERE

MONTHLY WEATHER REVIEW (1969) VOL. 97, PAGES 541-552.

RANDALL, H.M., D.M. DENNISON, N. GINSBURG, AND L.R. WEBER

THE FAR INFRARED SPECTRUM OF WATER VAPOR

PHYSICAL REVIEW (1937) VOL. 52, PAGES 160-174.

REED, J.W.

OZONOSPHERE WINDS AND TEMPERATURES FROM ACOUSTIC OBSERVATIONS OF 1955
ATOMIC TESTS

SANDIA CORPORATION (1956) ALBUQUERQUE, TECH. MEMO., 14 PAGES.

REED, R.J.

ENERGY CHANGES AND TRANSFORMATIONS IN THE SUDDEN WARMINGS OF LATE
JANUARY 1957 AND 1958

ARCTIC METEOROLOGICAL RESEARCH GROUP (1962) MCGILL UNIVERSITY,
MONTREAL, CANADA, METEOROLOGY NO. 47, PAGES 19-21.

REED, R.J.

ON THE CAUSE OF THE STRATOSPHERIC SUDDEN WARMING PHENOMENON

PROCEEDINGS OF THE INTERNATIONAL SYMPOSIUM ON STRATOSPHERIC AND
MESOSPHERIC CIRCULATION (1963) INST. METEOROL. GEOPHYS., FREIEN UNIV.,
BERLIN, PAGES 315-335.

REED, R.J.

SOME FEATURES OF THE ANNUAL TEMPERATURE REGIME IN THE TROPICAL
STRATOSPHERE

MONTHLY WEATHER REVIEW (1962) VOL. 90, PAGES 211-215.

REED, R.J.

WIND AND TEMPERATURE OSCILLATIONS IN THE TROPICAL STRATOSPHERE

TRANSACTIONS OF THE AMERICAN GEOPHYSICAL UNION (1962) VOL. 43,
PAGES 105-109.

REED, R.J., J.L. WOLFE, AND H. NISHIMOTO

A SPECTRAL ANALYSIS OF THE ENERGETICS OF THE STRATOSPHERIC SUDDEN WARMING OF EARLY 1957

JOURNAL OF THE ATMOSPHERIC SCIENCES (1963) VOL. 20, PAGES 256-275.

REGULA, W.

TEMPERATUREN UND WINDE IN DER OBEREN STRATOSPHERE

METEOROL. RUNDSCHAU (1949) VOL. 2, PAGES 267-270.

RICHARDSON, J.M., AND W.B. KENNEDY

ATMOSPHERIC WINDS AND TEMPERATURES TO 50 KILOMETERS ALTITUDE AS DETERMINED BY ACOUSTICAL PROPAGATION STUDIES

JOURNAL OF THE ACOUSTICAL SOCIETY OF AMERICA (1952) VOL. 24, PAGES 731-741.

ROCKET PANEL, HARVARD COLLEGE OBSERVATORY

PRESSURES, DENSITIES, AND TEMPERATURES IN THE UPPER ATMOSPHERE

PHYSICAL REVIEW (1952) VOL. 88, PAGES 1027-1032.

SAWADA, R.

THE ATMOSPHERIC LUNAR TIDES AND THE TEMPERATURE PROFILE IN THE UPPER ATMOSPHERE

GEOPHYSICAL MAGAZINE (1956) TOKYO, VOL. 27, PAGES 213-236.

SCHERHAG, R.

DIE EXPLOSIONSARTIGEN STRATOSPHERENERWARMUNGEN DES SPATWINTERS 1951/52

BER. DEUT. WETTERDIENSTES U.S. ZONE (1952) VOL. 38, PAGES 51-63.

SCHERHAG, R.

STRATOSPHERIC TEMPERATURE CHANGES AND THE ASSOCIATED CHANGES IN
PRESSURE DISTRIBUTION

JOURNAL OF METEOROLÖGY (1960) VOL. 17, PAGES 575-582.

SCHERHAG, R.

UBER DIE LUFTDRUCK-, TEMPERATUR- AND WINSCHWANKUNGFN IN DER
STRATOSPHERE

ABHANDLUNGFN MATH-NATURW. KL. DER AKADEMIE DER WISSENSCHAFTEN, MAINZ
(1959) PAGES 86-91.

SCHWERDTFEGER, W.

THE SOUTHERN CIRCUMPOLAR VORTEX AND THE SPRING WARMING OF THE POLAR
STRATOSPHERE

PROCEEDINGS OF THE INTERNATIONAL SYMPOSIUM ON STRATOSPHERIC AND
MESOSPHERIC CIRCULATION (1963) INST. METEOROL. GEOPHYS., FREIEN UNIV.,
BERLIN, PAGES 207-221.

SHVIDKOVSKII, F.G.

MEASUREMENTS OF THERMODYNAMIC PARAMETERS OF THE STRATOSPHERE WITH THE
AID OF METEOROLOGICAL ROCKETS

JOURNAL OF THE AMERICAN ROCKET SOCIETY (1959) N.S., VOL. 29, PAGES
733-736.

SICINSKI, H.S., N.W. SPENCER, AND W.G. DOW

ROCKET MEASUREMENTS OF UPPER ATMOSPHERIC AMBIENT TEMPERATURE AND
PRESSURE IN THE 30 TO 75 KILOMETER REGION

JOURNAL OF APPLIED PHYSICS (1954) VOL. 25, PAGES 161-168.

SMITH, W., L. KATCHEN, P. SACHER, P. SWARTZ, AND J. THEON

TEMPERATURE, PRESSURE, DENSITY, AND WIND MEASUREMENTS WITH THE ROCKET GRENADE EXPERIMENT, 1960-1963.

NASA (NATIONAL AERONAUTICS AND SPACE ADMINISTRATION) (1964) TECHNICAL REPORT TR-R-211.

STROUD, W.G., W. NORDBERG, AND J.R. WALSH

ATMOSPHERIC TEMPERATURE AND WINDS BETWEEN 30 AND 80 KM
JOURNAL OF GEOPHYSICAL RESEARCH (1956) VOL. 61, PAGES 45-56.

TEWELES, S.

ANOMALOUS WARMING IN THE STRATOSPHERE OVER NORTH AMERICA IN EARLY 1957
MONTHLY WEATHER REVIEW (1958) VOL. 86, PAGES 377-396.

TEWELES, S., AND F.G. FINGER

REDUCTION OF DIURNAL VARIATION IN THE REPORTED TEMPERATURES AND HEIGHTS OF STRATOSPHERIC CONSTANT PRESSURE SURFACES
JOURNAL OF METEOROLOGY (1960) VOL. 17, PAGES 177-194.

TOTH, J.

UBER DIE TEMPERATUR IN DER STRATOSPHERE UND MESOSPHERE
METEOROL. RUNDSCHAU (1963) VOL. 16, PAGES 16-19.

U.S. AIR FORCE

THE SUPPRESSION OF AIR FORCE CONDENSATION TRAILS
HANDBOOK OF GEOPHYSICS (1960) MACMILLAN, CHAPTER 19.

VOMRA, K.G., AND NAIR, P.V.N.

STABILITY OF SUBMICRON AQUEOUS SOLUTION DROPLETS IN THE ATMOSPHERE
JOURNAL OF THE ATMOSPHERIC SCIENCES (1971) VOL. 28, PAGES 280-285.

VONDER HAAR, T.H., AND V.E. SUOMI

MEASUREMENTS OF THE EARTH'S RADIATION BUDGET FROM SATELLITES DURING A
FIVE-YEAR PERIOD. PART 1: EXTENDED TIME AND SPACE MEANS

JOURNAL OF THE ATMOSPHERIC SCIENCES (1971) VOL. 28, PAGES 305-314.

WALSHAW, C.D., AND C.D. RODGERS

THE EFFECT OF THE CURTIS-GODSON APPROXIMATION ON THE ACCURACY OF
RADIATIVE HEATING-RATE CALCULATIONS

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1963) VOL. 89,
PAGES 122-130.

WARFIELD, C.N.

TENTATIVE TABLES FOR THE PROPERTIES OF THE UPPER ATMOSPHERE
NAT. ADV. COMM. TECH. NOTES NO. 1200 (1947).

WARK, D.Q., AND M. WOLK

AN EXTENSION OF A TABLE OF ABSORPTION FOR ELSASSER BANDS
MONTHLY WEATHER REVIEW (1960) VOL. 88, PAGES 249-250.

WEGE, K.

DRUCK- UND TEMPERATURVERHALTNISSE DER STRATOSPHERE ÜBER DER
NORDHALBKUGEL IN DEN MONATEN MARZ, MAI, SEPTEMBER, NOVEMBER UND
DEZEMBER

METEOROL. ABHANDLUNGEN (1958) INST. METEOROL. GEOPHYS., FREIEN UNIV.,
BERLIN, VOL. 7, 20 PAGES.

WEGE, K.

TEMPERATUR- UND STRÖMUNGSVERHÄLTNISSE IN DER STRATOSPHERE ÜBER DER
NORDHALBKUGEL

METEOROL. ABHANDLUNGEN (1957) INST. METEOROL. GEOPHYS., FREIEN UNIV.,
BERLIN, VOL. 5, 145 PAGES.

WEISNER, A.G.

THE DETERMINATION OF TEMPERATURES AND WINDS ABOVE THIRTY KILOMETERS

ROCKET EXPLORATION OF THE UPPER ATMOSPHERE (1954) (R.L.F. BOYD AND
M.J. SEATON, EDITORS), PERGAMON PRESS, OXFORD, PAGES 133-142.

WEXLER, H.

ANNUAL AND DIURNAL TEMPERATURE VARIATIONS IN THE UPPER ATMOSPHERE

TELLUS (1950) VOL. 2, PAGES 262-274.

WEXLER, H.

SEASONAL AND OTHER TEMPERATURE CHANGES IN THE ANARCTIC ATMOSPHERE

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1959) VOL. 85,
PAGES 196-208.

WEXLER, H.

SOME ASPECTS OF STRATOSPHERIC AND MESOSPHERIC TEMPERATURE AND WIND
PATTERNS

SPACE RESEARCH I (1961) (H. KALLMAN BIJL, EDITOR), NORTH-HOLLAND
PUBLICATIONS, AMSTERDAM, PAGES 1083-1093.

WEXLER, H., AND W.B. MORELAND

WINDS AND TEMPERATURES IN THE ARCTIC STRATOSPHERE

POLAR ATMOSPHERE SYMPOSIUM, JULY 1956 (1958) PERGAMON PRESS, OXFORD,
PART 1, METEOROL. SECTION, PAGES 71-84.

WHIPPLE, F.J.W.

THE HIGH TEMPERATURE OF THE UPPER ATMOSPHERE AS AN EXPLANATION OF
ZONES OF AUDIBILITY

NATURE (1923) VOL. 111, PAGE 187.

WHITE, R.M.

THE COUNTER-GRADIENT FLUX OF SENSIBLE HEAT IN THE LOWER STRATOSPHERE

TELLUS (1954) VOL. 6, PAGES 177-179.

WILSON, C.V., AND W.L. GODSON

THE STRATOSPHERIC TEMPERATURE FIELD AT HIGH LATITUDES

ARCTIC METEOROLOGICAL RESEARCH GROUP (1962) MCGILL UNIVERSITY,
MONTREAL, CANADA, PUBLICATIONS IN METEOROLOGY, PAGE 46.

APPLEMAN, H.S.

THE CLIMATOLOGICAL WIND AND WIND VARIABILITY BETWEEN 45 AND 60 KM
JOURNAL OF GEOPHYSICAL RESEARCH (1963) VOL. 68, PAGES 3611-3617.

AUFM KAMPE, H.J.

UPPER-AIR WIND MEASUREMENTS WITH SMALL ROCKETS
JOURNAL OF METEOROLOGY (1956) VOL. 13, PAGES 601-602.

BARTH, C.A.

NITROGEN AND OXYGEN ATOMIC REACTIONS IN THE CHEMOSPHERE
JET PROPULSION LABORATORIES (1961) TR 32-63, 14.4.

BARTMAN, F.L., L.W. CHANEY, L.M. JONES, AND V.C. LIU

UPPER-AIR DENSITY AND TEMPERATURE BY THE FALLING SPHERE METHOD
JOURNAL OF APPLIED PHYSICS (1956) VOL. 27, PAGES 706-712.

BATES, D.R., AND M. NICOLET

THE PHOTOCHEMISTRY OF ATMOSPHERIC WATER VAPOUR
JOURNAL OF GEOPHYSICAL RESEARCH (1950) VOL. 55, PAGES 301-327.

BATTEN, E.S.

WIND SYSTEMS IN THE MESOSPHERE AND LOWER IONOSPHERE
JOURNAL OF METEOROLOGY (1961) VOL. 18, PAGES 283-291.

BIGG, E.K.

THE DETECTION OF ATMOSPHERIC DUST AND TEMPERATURE INVERSIONS BY
TWILIGHT SCATTERING

JOURNAL OF METEOROLOGY (1956) VOL. 13, PAGE 262.

BOYD, R.L.F., AND M.J. SEATON (EDITORS)

ROCKET EXPLORATION OF THE UPPER ATMOSPHERE

PERGAMON PRESS (1954) OXFORD, 307 PAGES.

BRASEFIELD, C.J.

WINDS AT ALTITUDES UP TO 80 KM

JOURNAL OF GEOPHYSICAL RESEARCH (1954) VOL. 59, PAGES 233-237.

CHAPMAN, S.

PHOTOCHEMICAL PROCESSES IN THE UPPER ATMOSPHERE AND RESULTANT
COMPOSITION

COMPENDIUM OF METEOROLOGY (1951) (T.F. MALONE, EDITOR) AMERICAN
METEOROLOGICAL SOCIETY, BOSTON, MASSACHUSETTS, PAGES 262-274.

CHRISTIE, A.D.

THE GENESIS AND DISTRIBUTION OF NOCTILUCENT CLOUDS

JOURNAL OF THE ATMOSPHERIC SCIENCES (1969) VOL. 26, PAGES 168-176.

CONOVER, W.C.

AN INSTANCE OF A STRATOSPHERIC EXPLOSIVE WARMING

JOURNAL OF METEOROLOGY (1961) VOL. 18, PAGES 410-413.

COX, E.F., J.V. ATANASOFF, R.L. SNAVELY, D.W. BEECHER, AND
J. BROWN

UPPER-ATMOSPHERE TEMPERATURES FROM HEGOLAND BIG BANG
JOURNAL OF METEOROLOGY (1949) VOL. 6, PAGES 300-311.

CRACKETT, K.F., F.A. PANETH, AND E.J. WILSON

CHEMICAL COMPOSITION OF THE STRATOSPHERE AT 70 KM HEIGHT
NATURE (1949) VOL. 164, PAGES 128-129.

CRARY, A.P., AND V.C. BUSHNELL

DETERMINATION OF HIGH-ALTITUDE WINDS AND TEMPERATURES IN THE ROCKY
MOUNTAIN AREA BY ACOUSTICAL SOUNDINGS, OCTOBER 1951
JOURNAL OF METEOROLOGY (1955) VOL. 12, PAGES 463-471.

CURTIS, A.R., AND R.M. GOODY

THERMAL RADIATION IN THE UPPER ATMOSPHERE
PROCEEDINGS OF THE ROYAL SOCIETY (1956) VOL. A236, PAGES 193-206.

BEYRMENDJIAN, D., AND E.H. VESTINE

SOME REMARKS ON THE NATURE AND ORIGIN OF NOCTILUCENT CLOUD PARTICLES
PLANETARY AND SPACE SCIENCE (1959) VOL. 1, PAGES 146-193.

DITCHBURN, R.W.

ABSORPTION OF ULTRAVIOLET RADIATION BY THE ATMOSPHERIC GASES
PROCEEDINGS OF THE ROYAL SOCIETY (1956) VOL. A236, PAGES 216-226.

ELFORD, W.G.

A STUDY OF WINDS BETWEEN 80 AND 100 KM IN MEDIUM LATITUDES
PLANETARY AND SPACE SCIENCE (1959) VOL. 1, PAGES 94-101.

ELFORD, W.G.

WINDS IN THE UPPER ATMOSPHERE

JOURNAL OF ATMOSPHERIC AND TERRESTRIAL PHYSICS (1959) VOL. 15, PAGES
132-136.

ELTERMAN, L.

SEASONAL TRENDS OF TEMPERATURE, DENSITY, AND PRESSURE TO 67.6 KM
OBTAINED WITH THE SEARCHLIGHT PROBING TECHNIQUE

JOURNAL OF GEOPHYSICAL RESEARCH (1954) VOL. 59, PAGES 351-358.

REFERENCE, M., J.R. STROUD, J.R. WALSH, AND A.G. WEISNER

MEASUREMENT OF TEMPERATURES AT ELEVATIONS OF 30 TO 80 KM BY THE ROCKET
GRENADE EXPERIMENT

JOURNAL OF METEOROLOGY (1956) VOL. 13, PAGES 5-12.

FINGER, F.G., R.B. MASON, AND H.A. CORZINE

SOME FEATURES OF THE CIRCULATION AT THE 10-MB SURFACE, JULY 1958
THROUGH JUNE 1959

MONTHLY WEATHER REVIEW (1963) VOL. 91, PAGES 235-249.

FIDCO, G., AND G. GRAMS

ON THE ORIGIN OF NOCTILUCENT CLOUDS: EXTRATERRESTRIAL DUST AND
TRAPPED WATER MOLECULES

JOURNAL OF ATMOSPHERIC AND TERRESTRIAL PHYSICS (1971) VOL. 33,
PAGES 815-824.

FLEAGLE, R.G.

INFERENCES CONCERNING THE DYNAMICS OF THE MESOSPHERE

JOURNAL OF GEOPHYSICAL RESEARCH (1958) VOL. 63, PAGES 137-145.

GREENHOW, J.S., AND E.L. NEUFELD

DIURNAL AND SEASONAL WIND VARIATIONS IN THE UPPER ATMOSPHERE

PHILOSOPHICAL MAGAZINE (1955) VOL. 46, PAGES 549-562.

GREENHOW, J.S., AND E.L. NEUFELD

THE HEIGHT VARIATION OF UPPER ATMOSPHERIC WINDS

PHILOSOPHICAL MAGAZINE (1956) VOL. 1, PAGES 1157-1171.

GREENHOW, J.S., AND E.L. NEUFELD

LARGE SCALE IRREGULARITIES IN HIGH ALTITUDE WINDS

PROCEEDINGS OF THE PHYSICAL SOCIETY (1960) VOL. 75, PAGES 228-234.

GREENHOW, J.S., AND E.L. NEUFELD

MEASUREMENTS OF TURBULENCE IN THE UPPER ATMOSPHERE

PROCEEDINGS OF THE ROYAL SOCIETY (1959) VOL. A74, PAGES 1-10.

GREENHOW, J.S., AND E.L. NEUFELD

WINDS IN THE UPPER ATMOSPHERE

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1961) VOL. 87,
PAGES 472-489.

GROVES, G.V.

HIGH ATMOSPHERE WIND STUDIES BY SKYLARK ROCKET CLOUD RELEASES
IN FIRST INTERNATIONAL SYMPOSIUM ON ROCKET AND SATELLITE
METEOROLOGY (H. WEXLER AND J.E. CASKEY, JR., EDITORS)(1963)
PAGES 60-69, WILEY, NEW YORK.

GROVES, G.V.

WIND AND TEMPERATURE RESULTS OBTAINED IN SKYLARK EXPERIMENTS
SPACE RESEARCH 1 (1960) (H. KALLMANN BIJL, EDITOR) NORTH HOLLAND
PUBLISHING COMPANY, AMSTERDAM, PAGES 144-153.

GUTENBERG, B.

PHYSICAL PROPERTIES OF THE ATMOSPHERE UP TO 100 KM
JOURNAL OF METEOROLÖGY (1946) VOL. 3, PAGES 27-30.

HAVENS, R.J., R.T. KOLL, AND H.E. LAGOW

THE PRESSURE, DENSITY, AND TEMPERATURE OF THE EARTHS ATMOSPHERE
TO 160 KILOMETERS

JOURNAL OF GEOPHYSICAL RESEARCH (1952) VOL. 57, PAGES 59-72.

HEMENWAY, C.I., R.K. SOBERMAN, AND G. WITT

PARTICLE SAMPLING FROM NOCTILUCENT CLOUDS

NATURE (1963) VOL. 199, PAGES 269-270.

HEMENWAY, C.I., R.K. SOBERMAN, AND G. WITT

SAMPLING OF NOCTILUCENT CLOUD PARTICLES

TELLUS (1964) VOL. 16, PAGES 84-88.

HESSTVEDT, E.

NOTE ON THE NATURE OF NOCTILUCENT CLOUDS

JOURNAL OF GEOPHYSICAL RESEARCH (1961) VOL. 66, PAGES 1985-1987.

HILSEN RATH, F

OZONE MEASUREMENTS IN THE MESOSPHERE AND STRATOSPHERE DURING TWO SIGNIFICANT GEOPHYSICAL EVENTS

JOURNAL OF THE ATMOSPHERIC SCIENCES (1971) VOL. 28, PAGES 295-297.

HULTQUIST, B., AND J. ORNTER

STRONGLY ABSORBING LAYERS BELOW 50 KM

PLANETARY AND SPACE SCIENCE (1959) VOL. 1, PAGES 193-204.

HUMPHREYS, W.J.

NACREOUS AND NOCTILUCENT CLOUDS

MONTHLY WEATHER REVIEW (1933) VOL. 61, PAGES 228-229.

JURSA, A.S., Y. TANAKA, AND F. LEBLANC

NITRIC OXIDE AND MOLECULAR OXYGEN IN THE EARTH'S UPPER ATMOSPHERE

PLANETARY AND SPACE SCIENCE (1959) VOL. 1, PAGES 161-172.

KAISER, T.R., AND S. EVANS

UPPER ATMOSPHERIC DATA FROM METEORS

ANNALS DE GEOPHYSIQUE (1955) VOL. 11, PAGES 148-151.

KAPLAN, L.D.

THE INFLUENCE OF CARBON DIOXIDE VARIATIONS ON THE ATMOSPHERIC HEAT
BALANCE

TELLUS (1960) VOL. 12, PAGES 204-208.

KEEGAN, T.J.

LARGE-SCALE DISTURBANCES OF ATMOSPHERIC CIRCULATION BETWEEN 30 AND 70
KM IN WINTER

JOURNAL OF GEOPHYSICAL RESEARCH (1962) VOL. 67, PAGES 1831-1838.

KELLOGG, W.W.

POLLUTION OF THE UPPER ATMOSPHERE BY ROCKETS

SPACE SCIENCE REVIEW (1964) VOL. 3, PAGES 275-316.

KOCHANSKI, A.

CIRCULATION AND TEMPERATURE AT 70-100 KILOMETER HEIGHT

JOURNAL OF GEOPHYSICAL RESEARCH (1963) VOL. 69, PAGES 213-226.

KROENING, J.L.

ION DENSITY MEASUREMENTS IN THE STRATOSPHERE

JOURNAL OF GEOPHYSICAL RESEARCH (1960) VOL. 65, PAGES 145-151.

LONDON, J.

RADIATIVE PROPERTIES OF THE STRATOSPHERE

FINAL REPORT (1956) OCTOBER, AF19 (604)-1285, AD 110 220.

LUDLAM, F.H.

THE FORMS OF ICE CLOUDS II

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1956) VOL. 82,
PAGE 257.

MANRING, E.R.

STUDY OF WINDS, DIFFUSION, AND EXPANSION OF GASES IN THE UPPER ATMOSPHERE

QUARTERLY PROGRESS REPORT, GEOPHYSICS CORPORATION OF AMERICA (1962)
NASA/GSFC CONTRACT NO. NASW-396.

MANRING, E.R., J.F. BEDINGER, H.R. KNAFLINCH, AND R. LYNCH

MEASUREMENTS OF UPPER ATMOSPHERIC WINDS AND DIFFUSION COEFFICIENTS

JOURNAL OF GEOPHYSICAL RESEARCH (1960) VOL. 65, PAGE 2509.

MANRING, E., J.F. BEDINGER, H.B. PETIT, AND C.B. MOORE

SOME WIND DETERMINATIONS IN THE UPPER ATMOSPHERE USING ARTIFICIALLY
GENERATED SODIUM CLOUDS

JOURNAL OF GEOPHYSICAL RESEARCH (1959) VOL. 64, PAGES 587-591.

MANSON, A.H.

THE CONCENTRATION AND TRANSPORT OF MINOR CONSTITUENTS IN THE
MESOSPHERE AND LOWER THERMOSPHERE (70-110 KM) DURING PERIODS OF
ANOMALOUS ABSORPTION

JOURNAL OF ATMOSPHERIC AND TERRESTRIAL PHYSICS (1971) VOL. 33,
PAGES 715-721.

MASSEY, H.S.W., AND R.L.F. BOYD

THE UPPER ATMOSPHERE

PHILOSOPHICAL LIBRARY, NEW YORK (1959).

MASTERTON, J.E., W.E. HUBERT, AND T.R. CARR

WIND AND TEMPERATURE MEASUREMENTS IN THE MESOSPHERE BY METEOROLOGICAL
ROCKETS

JOURNAL OF GEOPHYSICAL RESEARCH (1961) VOL. 66, PAGES 2141-2151.

MIERS, B.T.

ZONAL WIND REVERSAL BETWEEN 30 AND 80 KM OVER THE SOUTHWESTERN
UNITED STATES

JOURNAL OF THE ATMOSPHERIC SCIENCES (1963) VOL. 20, PAGES 87-93.

MITRA, S.K.

THE UPPER ATMOSPHERE, SECOND EDITION

ASIATIC SOCIETY (1952) CALCUTTA, 713 PAGES.

MURGATROYD, R.J.

WINDS AND TEMPERATURES BETWEEN 20 KM AND 100 KM - A REVIEW

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1957) VOL. 83,
PAGES 417-458.

MURGATROYD, R.J., AND R.M. GOODY

SOURCES AND SINKS OF RADIATIVE ENERGY FROM 30 TO 90 KM

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1958) VOL. 84,
PAGES 225-234.

MURGATROYD, P.J., AND F. SINGLETON

POSSIBLE MERIDIONAL CIRCULATIONS IN THE STRATOSPHERE AND MESOSPHERE

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1961) VOL. 87,
PAGES 125-135.

NAZARK, A.

THE TEMPERATURE DISTRIBUTION OF THE UPPER ATMOSPHERE OVER NEW MEXICO

BULLETIN OF THE AMERICAN METEOROLOGICAL SOCIETY (1950) VOL. 31, PAGES 44-50.

NEWELL, H.E., JR.

TEMPERATURES AND PRESSURES IN THE UPPER ATMOSPHERE

COMPENDIUM OF METEOROLOGY (1951) PAGES 303-310.

NICOLET, M.

THE CONSTITUTION AND COMPOSITION OF THE UPPER ATMOSPHERE

PROC. IRF (1959) VOL. 47, PAGES 142-147.

NICOLET, M., AND P. MANGE

THE DISSOCIATION OF OXYGEN IN THE HIGH ATMOSPHERE

JOURNAL OF GEOPHYSICAL RESEARCH (1954) VOL. 59, PAGES 15-45.

PATON, J.

NOCTILUCENT CLOUDS

METEOROLOGICAL MAGAZINE (1964) VOL. 93, PAGES 161-179.

RAKIPOVA, L.P.

POSSIBLE EFFECT OF DUST ON VERTICAL AIR MOVEMENTS AND ON ISOTHERMY IN THE STRATOSPHERE

IZVESTIJA AKADEMIJI NAUK SSSR (1947) VOL. 11, PAGE 19.

RAPP, R.R.

THE ACCURACY OF WINDS DERIVED BY THE RADAR TRACKING OF CHAFF AT HIGH ALTITUDES

JOURNAL OF METEOROLÖGY (1960) VOL. 17, PAGES 507-514.

REED, R.J.

SEMIDIURNAL TIDAL MOTIONS BETWEEN 30 AND 60 KM

JOURNAL OF THE ATMOSPHERIC SCIENCES (1967) VOL. 24, PAGES 315-317.

ROCKET PANEL, HARVARD COLLEGE OBSERVATORY

PRESSURES, DENSITIES, AND TEMPERATURES IN THE UPPER ATMOSPHERE

PHYSICAL REVIEW (1952) VOL. 88, PAGES 1027-1032.

SIEBINSKI, H.S., N.W. SPENCER, AND W.G. DOW

ROCKET MEASUREMENTS OF UPPER ATMOSPHERIC AMBIENT TEMPERATURE AND PRESSURE IN THE 30 TO 75 KILOMETER REGION

JOURNAL OF APPLIED PHYSICS (1954) VOL. 25, PAGES 161-168.

SISSEWINE, N., D.D. GRANTHAM, AND H.A. SALMELA

HUMIDITY UP TO THE MESOPAUSE

AIR FORCE SURVEYS IN GEOPHYSICS (1968) CAMBRIDGE, MASSACHUSETTES, NO. 206, AFCRL.

SMITH, L.B.

THE MEASUREMENT OF WINDS BETWEEN 100,000 AND 300,000 FEET BY USE OF
CHAFF ROCKETS

JOURNAL OF METEOROLOGY (1960) VOL. 17, PAGES 296-310.

SMITH, L.B.

MONTHLY OBSERVATIONS OF WINDS BETWEEN 150,000 AND 300,000 FT OVER A ONE-
YEAR PERIOD

JOURNAL OF GEOPHYSICAL RESEARCH (1960) VOL. 65, PAGE 2924.

SOBERMAN, R.K.

NOCTILUCENT CLOUDS

SCIENTIFIC AMERICAN (1963) VOL. 208, PAGES 50-59.

STROUD, W.G., W. NORDBERG, AND J.R. WALSH

ATMOSPHERIC TEMPERATURE AND WINDS BETWEEN 30 AND 80 KM

JOURNAL OF GEOPHYSICAL RESEARCH (1956) VOL. 61, PAGES 45-56.

STROUD, W.G., W. NORDBERG, W.R. RANDEEN, F.L. BARTMAN, AND
R. TITUS

ROCKET-GRENADE MEASUREMENTS OF TEMPERATURES AND WINDS IN THE MESOSPHERE
OVER CHURCHILL, CANADA

JOURNAL OF GEOPHYSICAL RESEARCH (1960) VOL. 61, PAGES 2307-2323.

THEON, J.S., W. NORDBERG, L.B. KATCHEN, AND J.J. HORVATH

SOME OBSERVATIONS ON THE THERMAL BEHAVIOR OF THE MESOSPHERE

JOURNAL OF THE ATMOSPHERIC SCIENCES (1967) VOL. 24, PAGES 428-438.

THOMSEN, J.W.

THE ANNUAL DEPOSIT OF METEORITIC DUST
SKY AND TELESCOPE (1953) VOL. 12, PAGE 147.

TOWNSEND, J.W.

COMPOSITION OF THE UPPER ATMOSPHERE
WORLD DATA CENTER A (1960) IGY ROCKET REPORT NO. 6, PAGES 61-82.

TROWBRIDGE, C.C.

ON ATMOSPHERIC CURRENTS AT VERY GREAT ALTITUDES
MONTHLY WEATHER REVIEW (1907) VOL. 35, PAGES 390-397.

WARFIELD, C.N.

TENTATIVE TABLES FOR THE PROPERTIES OF THE UPPER ATMOSPHERE
NAT. ADV. COMM. TECH. NOTES NO. 1200 (1947).

WATANABE, K.

ULTRAVIOLET ABSORPTION PROCESSES IN THE UPPER ATMOSPHERE
ADVANCES IN GEOPHYSICS (1958) VOL. 5, PAGES 153-221.

WEBB, W.L.

MORPHOLOGY OF NOCTILUCENT CLOUDS
JOURNAL OF GEOPHYSICAL RESEARCH (1965) VOL. 70, PAGES 4463-4475.

WEISNER, A.G.

THE DETERMINATION OF TEMPERATURES AND WINDS ABOVE THIRTY KILOMETERS
ROCKET EXPLORATION OF THE UPPER ATMOSPHERE (1954) (R.L.F. BOYD AND
M.J. SEATON, EDITORS), PERGAMON PRESS, OXFORD, PAGES 133-142.

WEISNER, A.G.

MEASUREMENT OF WINDS AT ELEVATIONS OF 30 TO 80 KM BY THE
ROCKET-GRENADE EXPERIMENT

JOURNAL OF METEOROLOGY (1956) VOL. 13, PAGES 30-39.

WENZEL, E.A., I.T. LOH, M.H. NICHOLS, AND L.M. JONES

THE MEASUREMENT OF DIFFUSIVE SEPARATION IN THE UPPER ATMOSPHERE
WORLD DATA CENTER A (1958) IGY ROCKET REPORT NO. 1, PAGES 91-106.

WHIPPLE, F.L.

THE EARTH'S DUST BELT

ASTRONOMICAL SCIENCE REVIEW (1961) VOL. 3, PAGES 17-20.

WHIPPLE, F.L.

EXPLORATION OF THE UPPER ATMOSPHERE BY METEORITIC TECHNIQUES
ADVANCES IN GEOPHYSICS (1952) VOL. 1, PAGES 119-154.

WOODBIDGE, D.D.

IONOSPHERIC WINDS

JOURNAL OF GEOPHYSICAL RESEARCH (1962) VOL. 67, PAGES 4221-4231.

AINSWORTH, J.E., D.F. FOX, AND H.E. LAGOW

MEASUREMENT OF UPPER ATMOSPHERE STRUCTURE BY MEANS OF THE PITOT-STATIC TUBE

NASA (NATIONAL AERONAUTICS AND SPACE ADMINISTRATION) (1961) TECHNICAL NOTE TN D-670.

AINSWORTH, J.E., D.F. FOX, AND H.E. LAGOW

UPPER-ATMOSPHERE STRUCTURE MEASUREMENT MADE WITH THE PITOT-STATIC TUBE
JOURNAL OF APPLIED PHYSICS (1950) VOL. 21, PAGES 143-149.

ALLINGTON, K., B.W. BOVILLE, AND F.K. HARE

MIDWINTER OZONE VARIATIONS AND STRATOSPHERIC FLOW OVER CANADA
TELLUS (1960) VOL. 12, PAGES 266-273.

APPLEMAN, H.S.

DERIVATION OF JET-AIRCRAFT CONTRAIL-FORMATION CURVES

AIR WEATHER SERVICE TECHNICAL REPORT 105-145 (1957) U.S. AIR FORCE.

APPLEMAN, H.S.

EFFECT OF SUPERSONIC AIRCRAFT ON CIRRUS FORMATION AND CLIMATE

AMS/AIAA CONFERENCE ON AEROSPACE METEOROLOGY (1966) PAPER NO. 66-369.

ARNOLD, A.

TURBULENCE IN THE STRATOSPHERE

BULLETIN OF THE AMERICAN METEOROLOGICAL SOCIETY (1952) VOL. 33, PAGE 77.

AUFM KAMPE, H.J.

NEUERE STRATOSPHERE DATEN

METEOROL. RUNDSCHAU (1953) VOL. 6, PAGES 99-100.

AUSTIN, J.A., AND L. KRAWITZ

50 MILIBAR PATTERNS AND THEIR RELATIONSHIP TO TROPOSPHERIC CHANGES

JOURNAL OF METEOROLOGY (1956) VOL. 13, PAGES 152-159.

BARRETT, E.W., R.F. PUESCHEL, H.K. WEICKMANN, AND P.M. KUHN

INADVERTENT MODIFICATION OF WEATHER AND CLIMATE BY ATMOSPHERIC POLLUTANTS

ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION RESEARCH LABORATORIES (1970)
ESSA TECHNICAL REPORT ERL 185-APCL 15, 103 PAGES.

BERKOFSKY, L.

INTERNAL GRAVITY-VORTICITY LIFE WAVES OVER MOUNTAINS

JOURNAL OF GEOPHYSICAL RESEARCH (1960) VOL. 65, PAGES 3685-3691.

BLAMONT, J.E., AND C. DE JAGER

UPPER ATMOSPHERIC TURBULENCE DETERMINED BY MEANS OF ROCKETS

JOURNAL OF GEOPHYSICAL RESEARCH (1962) VOL. 67, PAGES 3113-3119.

BLAMONT, J.E., AND C. DE JAGER

UPPER ATMOSPHERIC TURBULENCE NEAR THE 100 KM LEVEL

ANNALES DE GEOPHYSIQUE (1961) VOL. 17, PAGES 134-144.

BOROVIKOV, A.M., G.I. GOLYSHEV, AND G.A. KOKIN

SOME CHARACTERISTICS OF THE ATMOSPHERE OF THE SOUTHERN HEMISPHERE

FIRST INTERNATIONAL SYMPOSIUM ON ROCKET AND SATELLITE METEOROLOGY (1963)
(H. WEXLER AND J.E. CASKEY, JR., EDITORS), WILEY, NEW YORK, PAGES 164-172.

BOVILLE, B.W.

THE ALEUTIAN STRATOSPHERIC ANTICYCLONE

JOURNAL OF METEOROLOGY (1960) VOL. 17, PAGES 329-336.

BOVILLE, B.W.

A DYNAMICAL STUDY OF THE 1958-59 STRATOSPHERIC POLAR VORTEX

MCGILL UNIVERSITY (1961) MONTREAL, CANADA, SCI. REPORT NO. 9, CONTRACT
AF19(604)-3865, 134 PAGES.

BOVILLE, B.W.

WHAT ARE THE CAUSES OF THE ALEUTIAN ANTICYCLONE

PROCEEDINGS OF THE INTERNATIONAL SYMPOSIUM ON STRATOSPHERIC AND
MESOSPHERIC CIRCULATION (1963) INST. METEOROL. GEOPHYS., FREIEN
UNIV., BERLIN, PAGES 107-121.

BOVILLE, B.W., C.V. WILSON, AND F.K. HARE

BAROCLINIC WAVES OF THE POLAR-NIGHT VORTEX

JOURNAL OF METEOROLOGY (1961) VOL. 18, PAGES 567-580.

BREILAND, J.G.

COMPARISON OF THE VERTICAL DISTRIBUTION OF THERMAL STABILITY IN THE
LOWER STRATOSPHERE WITH THE VERTICAL DISTRIBUTION OF ATMOSPHERIC OZONE

JOURNAL OF THE ATMOSPHERIC SCIENCES (1967) VOL. 24, PAGES 569-576.

BREWER, A.W.

EVIDENCE FOR A WORLD CIRCULATION PROVIDED BY THE MEASUREMENTS OF HELIUM AND WATER VAPOUR DISTRIBUTION IN THE STRATOSPHERE

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1949) VOL. 75, PAGES 351-363.

BULLARD, F.M.

VOLCANOES IN HISTORY, IN THEORY, IN ERUPTION

UNIVERSITY OF TEXAS PRESS (1962) AUSTIN.

BYRON-SCOTT, R.

A STRATOSPHERIC GENERAL CIRCULATION EXPERIMENT INCORPORATING DIABATIC HEATING AND OZONE PHOTOCHEMISTRY

MCGILL UNIVERSITY (1967) ARCTIC METEOROLOGY RESEARCH GROUP, DEPARTMENT OF METEOROLOGY, PUBLICATIONS IN METEOROLOGY NO. 87 (AFCL-67-0344), 367 PAGES.

CADLE, R.D., R. BLECK, J.P. SHEDIOVSKY, I.H. BLIFFORD,
J. ROSINSKI, AND A.L. LAZRUS

TRACE CONSTITUENTS IN THE VICINITY OF JET STREAMS

JOURNAL OF APPLIED METEOROLOGY (1969) VOL. 8, PAGES 348-356.

CHANG, C.

ON THE STABILITY OF LOW-LATITUDE QUASI-GEOSTROPHIC FLOW IN A CONDITIONALLY UNSTABLE ATMOSPHERE

JOURNAL OF THE ATMOSPHERIC SCIENCES (1971) VOL. 28, PAGES 270-274.

CHARNEY, J.G., AND P.G. DRAZIN

PROPAGATION OF PLANETARY-SCALE DISTURBANCES FROM THE LOWER INTO THE UPPER ATMOSPHERE

JOURNAL OF GEOPHYSICAL RESEARCH (1961) VOL. 66, PAGES 83-109.

CHIU, W.C., AND R.S. GREENFIELD

THE RELATIVE IMPORTANCE OF DIFFERENT HEAT-EXCHANGE PROCESSES IN THE LOWER STRATOSPHERE

JOURNAL OF METEOROLOGY (1959) VOL. 16, PAGES 271-280.

CLARK, G.Q., W.L. WEBB AND K.R. JENKINS

ROCKET SOUNDING OF HIGH ATMOSPHERE METEOROLOGICAL PARAMETERS

INSTITUTE OF RADIO ENGINEERS, TRANSACTIONS OF MILITARY ELECTRONICS (1960) VOL. 4, PAGES 238-243.

CLARK, J.H.E.

A QUASI-GEOSTROPHIC MODEL OF THE WINTER STRATOSPHERIC CIRCULATION

MONTHLY WEATHER REVIEW (1970) VOL. 98, PAGES 443-461.

CONOVER, W.C.

AN INSTANCE OF A STRATOSPHERIC EXPLOSIVE WARMING

JOURNAL OF METEOROLOGY (1961) VOL. 18, PAGES 410-413.

COSPAR

ON THE PHYSICS OF THE NEUTRAL UPPER ATMOSPHERE

COSPAR INTERNATIONAL REFERENCE ATMOSPHERE (1970) GODDARD SPACE FLIGHT CENTER, GREENBELT, MARYLAND, PROGRESS REPORT, 106 PAGES.

COURT, A.

TROPOPAUSE DISAPPEARANCE DURING THE ANTARCTIC WINTER

BULLETIN OF THE AMERICAN METEOROLOGICAL SOCIETY (1941) VOL. 23, PAGES 220-238.

CRAIG, R.A., AND M.A. LATEEF

VERTICAL MOTION DURING THE 1957 STRATOSPHERIC WARMING

JOURNAL OF GEOPHYSICAL RESEARCH (1962) VOL. 67, PAGES 1839-1854.

DANIELSEN, E.F.

STRATOSPHERIC-TROPOSPHERIC EXCHANGE BASED ON RADIOACTIVITY, OZONE AND POTENTIAL VORTICITY

JOURNAL OF THE ATMOSPHERIC SCIENCES (1968) VOL. 25, PAGES 502-521.

DEPANT, F., AND H. TABA

THE THREEFOLD STRUCTURE OF THE ATMOSPHERE AND THE CHARACTERISTICS OF THE TROPOPAUSE

TELLUS (1957) VOL. 2, PAGES 259-274.

DOBSON, G.M.R.

RECENT WORK ON THE STRATOSPHERE

JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1951) VOL. 77, PAGES 488-492.

DOBSON, G.M.B., A.W. BREWER, AND B.M. CWILONG

METEOROLOGY OF THE LOWER STRATOSPHERE

PROCEEDINGS OF THE PHYSICAL SOCIETY (1946) LONDON, VOL. A185, PAGES 144-175.

BOPPLICK, T.G.

THE ENERGETICS OF THE LOWER STRATOSPHERE INCLUDING RADIATIVE EFFECTS
QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1971) VOL. 97,
PAGES 209-237.

BYER, A.J., AND B.B. HICKS

GLOBAL SPREAD OF VOLCANIC DUST FROM THE BALI ERUPTION OF 1963
QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1968) VOL. 94,
PAGES 545-554.

ELIASSEN, A., AND E. PALM

ON THE TRANSFER OF ENERGY IN STATIONARY MOUNTAIN WAVES
GEOFYSISKE PUBLIKASJONER (1961) NORSKE VIDENSKAPS-AKAD. OSLO, VOL. 22,
PAGES 1-23.

FABIAN, P., W.F. LIBBY, AND C.E. PALMER

STRATOSPHERIC RESIDENCE TIME AND INTERHEMISPHERIC MIXING OF STRONTIUM 90
FROM FALLOUT IN RAIN
JOURNAL OF GEOPHYSICAL RESEARCH (1968) VOL. 73, PAGES 3611-3616.

FARKAS, E.

SPRINGTIME TEMPERATURE CHANGES IN THE ANTARCTIC STRATOSPHERE
NEW ZEALAND JOURNAL OF GEOLOGICAL GEOPHYSICS (1961) VOL. 4, PAGES
372-386.

FEELY, H.W., H. SEITZ, R.J. LAGOMARSINO, AND P.E. BISCARVE
TRANSPORT AND FALLOUT OF STRATOSPHERIC RADIOACTIVE DEBRIS
TELLUS (1966) VOL. 18, PAGES 316-328.

FEELY, H.W., AND J. SPAR
TUNGSTEN 185 FROM NUCLEAR BOMB TESTS AS TRACER FOR STRATOSPHERIC
METEOROLOGY
NATURE (1960) VOL. 188, PAGES 1062-1064.

FESENKOV, V.G.
THE MASS OF THE ATMOSPHERIC RESIDUE OF THE SILHOTE-ALIN METEORITE
DOKL. AKAD. NAUK SSSR (1949) VOL. 66, PAGES 231-238.

FINGER, F.G., R.B. MASON, AND H.A. CORZINE
SOME FEATURES OF THE CIRCULATION AT THE 10-MB SURFACE, JULY 1958
THROUGH JUNE 1959
MONTHLY WEATHER REVIEW (1963) VOL. 91, PAGES 235-249.

FINGER, F.G., AND R.M. MCINTURFF
METEOROLOGY AND THE SUPERSONIC TRANSPORT
SCIENCE (1970) VOL. 167, PAGES 16-25.

FINGER, F.G., AND S. TEWELES
THE MID-WINTER 1963 STRATOSPHERIC WARMING AND CIRCULATION CHANGE
JOURNAL OF APPLIED METEOROLOGY (1964) VOL. 3, PAGES 1-15.

FINGER, F.G., AND H.M. WOOLF

SOUTHERN HEMISPHERE STRATOSPHERIC CIRCULATION AS INDICATED BY SHIPBOARD METEOROLOGICAL ROCKET OBSERVATIONS

JOURNAL OF THE ATMOSPHERIC SCIENCES (1967) VOL. 24, PAGES 387-395.

FINGER, F.G., H.M. WOOLF, AND C.F. ANDERSON

A METHOD FOR OBJECTIVE ANALYSIS OF STRATOSPHERIC CONSTANT-PRESSURE CHARTS

MONTHLY WEATHER REVIEW (1965) VOL. 93, PAGES 619-638.

FLEAGLE, R.G.

INFERENCES CONCERNING THE DYNAMICS OF THE MESOSPHERE

JOURNAL OF GEOPHYSICAL RESEARCH (1958) VOL. 63, PAGES 137-145.

FOWLE, F.E.

OZONE IN THE NORTHERN AND SOUTHERN HEMISPHERES

JOURNAL OF TERRESTRIAL MAGNETISM AND ATMOSPHERIC ELECTRICITY (1928)
VOL. 33, PAGES 151-157.

FRIEND, J.P., H.W. FEELY, P.W. KREY, J. SPAR, AND A. WALTON

THE HIGH ALTITUDE SAMPLING PROGRAM, FINAL REPORT

DEFENSE ATOMIC SUPPORT AGENCY (1961) ISOTOPES, INC., WESTWOOD, NEW JERSEY, CONTRACT DA-29-044-X7-609.

FROGNER, E.

TEMPERATURE CHANGES ON A LARGE SCALE IN THE ARCTIC WINTER STRATOSPHERE AND THEIR PROBABLE EFFECTS ON THE TROPOSPHERIC CIRCULATION

GEOFYSISKE PUBLIKASJONER (1962) NORSKE VIDENSKAPS-AKAD. OSLO, VOL. 23, PAGES 1-83.

GERSON, N.C.

GENERAL CIRCULATION OF THE HIGH ATMOSPHERE

JOURNAL OF GEOPHYSICAL RESEARCH (1956) VOL. 61, PAGES 351-353.

GODSON, W.L.

ANTARCTIC WINTER STRATOSPHERE

ARCTIC METEOROLOGICAL RESEARCH GROUP (1962) MCGILL UNIVERSITY,
MONTREAL, CANADA, PUBLICATIONS IN METEOROLOGY, NO. 49, PAGES 37-40.

GODSON, W.L.

A COMPARISON OF MIDDLE-STRATOSPHERE BEHAVIOR IN THE ARCTIC AND
ANTARCTIC, WITH SPECIAL REFERENCE TO FINAL WARMINGS

PROCEEDINGS OF THE INTERNATIONAL SYMPOSIUM ON STRATOSPHERIC AND
MESOSPHERIC CIRCULATION (1963) INST. METEOROL. GEOPHYS., FREIEN UNIV.,
BERLIN, PAGES 161-207.

GOLDIE, A.H.R.

THE AVERAGE PLANETARY CIRCULATION IN VERTICAL MERIDIAN PLANES

CENTENNIAL PROCEEDINGS OF THE ROYAL METEOROLOGICAL SOCIETY (1950) PAGES
175-180.

GREENHOW, J.S., AND J.E. HALL

THE HEIGHT VARIATION OF THE AMBIPOLAR DIFFUSION COEFFICIENT FOR METEOR
TRAILS

PLANETARY AND SPACE SCIENCE (1961) VOL. 5, PAGES 109-114.

GREENHOW, J.S., AND E.L. NEUFELD

MEASUREMENTS OF TURBULENCE IN THE UPPER ATMOSPHERE

PROCEEDINGS OF THE ROYAL SOCIETY (1959) VOL. A74, PAGES 1-10.

GUBIKSEN, P.H., A.W. FAIRHALL, AND R.J. REED

ROLES OF MEAN MERIDIONAL CIRCULATION AND EDDY DIFFUSION IN THE TRANSPORT OF TRACE SUBSTANCES IN THE LOWER STRATOSPHERE

JOURNAL OF GEOPHYSICAL RESEARCH (1968) VOL. 73, PAGES 4461-4473.

HAAGEN-SMIT, A.J., AND L.G. WAYNE

ATMOSPHERIC REACTIONS AND SCAVENGING PROCESSES

AIR POLLUTION (1968) (A.C. STERN, EDITOR) ACADEMIC PRESS, NEW YORK, VOL. 1, PAGES 149-186.

HAGE, K.D.

PARTICLE FALLOUT AND DISPERSION BELOW 30 KM IN THE ATMOSPHERE

SANDIA REPORT SC-DC-64-1463 (1964).

HANSEN, C.F.

SOME CHARACTERISTICS OF THE UPPER ATMOSPHERE PERTAINING TO HYPERVELOCITY FLIGHT

JET PROPULSION (1957) VOL. 27, PAGES 1151-1158.

HARE, F.K.

THE DISTURBED CIRCULATION OF THE ARCTIC STRATOSPHERE

JOURNAL OF METEOROLOGY (1960) VOL. 17, PAGES 36-52.

HARE, F.K.

THE SUMMER CIRCULATION OF THE ARCTIC ATMOSPHERE BELOW 30 KILOMETERS
QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1960) VOL. 86,
PAGES 127-143.

HARE, F.K., AND B.W. BOVILLE

STUDIES IN ARCTIC AND STRATOSPHERIC METEOROLOGY
METEOROLOGIE (1961) (4) VOL. 42, PAGE 35.

HARRIS, B.

VOLCANIC PARTICLES IN THE STRATOSPHERE
AUSTRALIAN JOURNAL OF PHYSICS (1964) VOL. 17, PAGES 472-479.

HARRIS, I., AND W. PRIESTER

TIME-DEPENDENT STRUCTURE OF THE UPPER ATMOSPHERE
JOURNAL OF THE ATMOSPHERIC SCIENCES (1962) VOL. 19, PAGES 286-301.

HARRIS, M.F., F.G. FINGER, AND S. TEWELES

DIURNAL VARIATION OF WIND, PRESSURE, AND TEMPERATURE IN THE
TROPOSPHERE AND STRATOSPHERE OVER THE AZORES
JOURNAL OF THE ATMOSPHERIC SCIENCES (1962) VOL. 19, PAGES 136-149.

HAURWITZ, R.

FRICTIONAL EFFECTS AND THE MERIDIONAL CIRCULATION IN THE MESOSPHERE
JOURNAL OF GEOPHYSICAL RESEARCH (1961) VOL. 66, PAGES 2381-2391.

HAURWITZ, B.

THE ZONAL WIND FIELD IN THE UPPER ATMOSPHERE

NEW YORK UNIVERSITY (1954) DEPT. OF METEOROLOGY AND OCEANOGRAPHY,
SCIENCE REPORT 7.

HESSTVEDT, E.

ON THE EFFECT OF VERTICAL EDDY TRANSPORT ON ATMOSPHERIC COMPOSITION IN
THE MESOSPHERE AND LOWER THERMOSPHERE

GEOFYSISKE PUBLIKASJONER (1968) VOL. 27, PAGES 1-35.

HUNT, B.G., AND S. MANABE

EXPERIMENTS WITH A STRATOSPHERIC GENERAL CIRCULATION MODEL: II. LARGE
SCALE DIFFUSION OF TRACERS IN THE STRATOSPHERE

MONTHLY WEATHER REVIEW (1968) VOL. 96, PAGES 503-539.

JOHNSON, D.H.

TIDAL OSCILLATIONS OF THE LOWER STRATOSPHERE

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1955) VOL. 81,
PAGES 1-8.

JONES, L.M.

MEASURING UPPER AIR STRUCTURE

ASTRONAUTICS (1959) VOL. 2, PAGES 29-50.

JONES, R.F., R.M. MCINTURFF, AND S. TEWELES

METEOROLOGICAL PROBLEMS IN THE DESIGN AND OPERATION OF SUPERSONIC
AIRCRAFT

WORLD METEOROLOGICAL ORGANIZATION (1967) GENEVA, SWITZERLAND.

JULIAN, P.R.

REMARKS ON THE DISTURBED CIRCULATION OF THE ARCTIC STRATOSPHERE
JOURNAL OF METEOROLOGY (1961) VOL. 18, PAGES 119-121.

JULIAN, P.R.

SOME ASPECTS OF TROPOSPHERIC CIRCULATION DURING MIDWINTER
STRATOSPHERIC WARMING EVENTS
JOURNAL OF GEOPHYSICAL RESEARCH (1965) VOL. 70, PAGES 957-768.

JULIAN, P., I. KRAWITH, AND H. PANOFSKY

THE RELATION BETWEEN HEIGHT PATTERN 500 MB AND 100 MB
MONTHLY WEATHER REVIEW (1959) VOL. PAGES 251-260.

JULIAN, P.R., AND K. LABITZKE-BEHR

A STUDY OF ATMOSPHERIC ENERGETICS DURING THE JANUARY-FEBRUARY 1963
STRATOSPHERIC WARMING
JOURNAL OF THE ATMOSPHERIC SCIENCES (1965) VOL. 22, PAGES 597-610.

JUNGE, C.E.

STUDIES OF GLOBAL EXCHANGE PROCESSES IN THE ATMOSPHERE BY NATURAL AND
ARTIFICIAL TRACES
JOURNAL OF GEOPHYSICAL RESEARCH (1963) VOL. 68, PAGES 3849-3855.

KALLMANN, H.F.

A PRELIMINARY MODEL ATMOSPHERE BASED ON ROCKET AND SATELLITE DATA
JOURNAL OF GEOPHYSICAL RESEARCH (1959) VOL. 64, PAGES 615-623.

KAROL, I.L.

NUMERICAL MODEL OF THE GLOBAL TRANSPORT OF RADIOACTIVE TRACERS FROM THE INSTANTANEOUS SOURCES IN THE LOWER STRATOSPHERE

JOURNAL OF GEOPHYSICAL RESEARCH (1970) VOL. 75, PAGES 3589-3603.

KEEGAN, T.J.

LARGE-SCALE DISTURBANCES OF ATMOSPHERIC CIRCULATION BETWEEN 30 AND 70 KM IN WINTER

JOURNAL OF GEOPHYSICAL RESEARCH (1962) VOL. 67, PAGES 1831-1838.

KEEGAN, T.J.

SYNOPTIC PATTERNS AT 100,000 TO 200,000 FEET

PROCEEDINGS OF THE NATIONAL SYMPOSIUM ON WINDS FOR AEROSPACE VEHICLE DESIGN (1962) VOL. 11, U.S. AIR FORCE, CAMBRIDGE RESEARCH LABORATORIES, SURVEYS IN GEOPHYSICS, NO. 140, PAGES 195-210.

KEEGAN, T.J.

WINDS AND CIRCULATIONS IN THE MESOSPHERE

JOURNAL OF THE AMERICAN ROCKET SOCIETY (1961) N.S., VOL. 31, PAGES 1060-1066.

KELLOGG, W.W.

TEMPERATURES AND MOTIONS OF THE UPPER ATMOSPHERE

PHYSICS AND MEDICINE OF THE UPPER ATMOSPHERE, ALBUQUERQUE (1952) PAGES 54-74.

KELLOGG, W.W.

UPPER ATMOSPHERE STUDIES

TRANSACTIONS OF THE AMERICAN GEOPHYSICAL UNION (1960) VOL. 41, PAGES
179-183.

KELLOGG, W.W., AND G.F. SCHILLING

A PROPOSED MODEL OF THE CIRCULATION IN THE UPPER STRATOSPHERE

JOURNAL OF METEOROLOGY (1951) VOL. 8, PAGES 222-230.

KENNEDY, J.S., AND W. NORDBERG

CIRCULATION FEATURES OF THE STRATOSPHERE DERIVED FROM RADIOMETRIC
TEMPERATURE MEASUREMENTS WITH THE TIROS VII SATELLITE

JOURNAL OF THE ATMOSPHERIC SCIENCES (1967) PAGES 711-719.

KHVOSTIKOV, I.A., M.N. IZAKOV, G.A. KOKIN, YU. V. KURILOVA,
AND N.C. LIVSHITZ

INVESTIGATION OF THE STRATOSPHERE BY MEANS OF METEOROLOGICAL ROCKETS IN
THE USSR

FIRST INTERNATIONAL SYMPOSIUM ON ROCKET AND SATELLITE METEOROLOGY
(1963) (H. WEXLER AND J.E. CASKEY, JR., EDITORS), WILEY, NEW YORK,
PAGES 34-41.

KISS, E.

ANNOTATED BIBLIOGRAPHY ON UPPER ATMOSPHERE STRUCTURE

METEOROLOGICAL AND GEOSTROPHICAL ABSTRACTS (1961) VOL. 12,
PAGES 776-826.

KITAOKA, T.

SOME CONSIDERATIONS ON THE STRATOSPHERE RELATED TO THE CAUSE OF THE
ALEUTIAN HIGH

PROCEEDINGS OF THE INTERNATIONAL SYMPOSIUM FOR STRATOSPHERIC AND
MESOSPHERIC CIRCULATION (1963) INSTITUTE OF METEOROLOGY AND GEOPHYSICS,
FREIEN UNIVERSITY, BERLIN, PAGES 121-153.

KOCHANSKI, A.

CIRCULATION AND TEMPERATURE AT 70-100 KILOMETER HEIGHT

JOURNAL OF GEOPHYSICAL RESEARCH (1963) VOL. 69, PAGES 213-226.

KOCHANSKI, A.

CROSS SECTIONS OF THE MEAN ZONAL FLOW AND TEMPERATURE ALONG 80 DEGREES
WEST

JOURNAL OF METEOROLOGY (1955) VOL. 12, PAGES 95-106.

KOCHANSKI, A.

THERMAL STRUCTURE AND VERTICAL MOTION IN THE LOWER STRATOSPHERE

AIR WEATHER SER. TECH. (1954) VOL. 35, PAGES 105-129.

LABITZKE-BEHR, K.

BEITRAGE ZUR SYNOPTIK DER HOCHSTRATOSPHERE

METEOROL. ABHANDL. INST. METEOROL. GEOPHYS., FREIEN UNIV., BERLIN (1962)
VOL. 28, PAGES 32-72.

LARITZKE-BEHR, K.

ON THE MUTUAL RELATION BETWEEN STRATOSPHERE AND TROPOSPHERE DURING PERIODS OF STRATOSPHERIC WARMINGS IN WINTER

JOURNAL OF APPLIED METEOROLOGY (1965) VOL. 14, PAGES 91-99.

LABY, J.E., AND E.L. UNTHANK

DAY-TO-DAY WIND FLUCTUATIONS OF THE WINDS IN THE LOWER STRATOSPHERE OVER AUSTRALIA

JOURNAL OF THE ATMOSPHERIC SCIENCES (1967) VOL. 24, PAGES 98-100.

LAMB, H.H.

VOLCANIC DUST IN THE ATMOSPHERE WITH A CHRONOLOGY AND ASSESSMENT OF ITS METEOROLOGICAL SIGNIFICANCE

PHILOSOPHICAL TRANSACTIONS OF THE ROYAL SOCIETY OF LONDON (1970) SERIES A, VOL. 266, PAGES 425-533.

LANGER, G. AND J. STOCKHAM

HIGH-ALTITUDE TRACKING BY CHEMICAL SMOKES

JOURNAL OF GEOPHYSICAL RESEARCH (1960) VOL. 65, PAGES 3331-3338.

LEE, R., AND W.L. GODSON

THE ARCTIC STRATOSPHERIC JET STREAM DURING THE WINTER 1955-1956

JOURNAL OF METEOROLOGY (1957) VOL. 14, PAGES 126-135.

LETTAU, H.

THEORETICAL NOTES ON THE DYNAMICS OF THE EQUATORIAL ATMOSPHERE

REITRAEGE ZUR PHYSIK DER ATMOSPHERE (1956) VOL. 29, PAGES 107-122.

LIST, R.J., AND K. TELEGADAS

USING RADIOACTIVE TRACERS TO DEVELOP A MODEL OF THE CIRCULATION OF THE STRATOSPHERE

JOURNAL OF THE ATMOSPHERIC SCIENCES (1969) VOL. 26, PAGES 1128-1136.

MAHTA, L., K. TELEGADAS, AND R.J. LIST

THE SLOPE OF SURFACES OF MAXIMUM TRACER CONCENTRATION IN THE LOWER STRATOSPHERE

JOURNAL OF GEOPHYSICAL RESEARCH (1970) VOL. 75, PAGES 2279-2289.

MAEDA, K., AND K. HIARO

A REVIEW OF UPPER ATMOSPHERE ROCKET RESEARCH IN JAPAN

PLANETARY AND SPACE SCIENCE (1962) VOL. 9, PAGES 355-369.

MAHLMAN, J.D.

ENERGETICS OF A 'MINOR BREAKDOWN' OF THE STRATOSPHERIC POLAR NIGHT VORTEX

JOURNAL OF THE ATMOSPHERIC SCIENCES (1969) VOL. 26, PAGES 1306-1017.

MANABE, S., AND B.G. HUNT

EXPERIMENTS WITH A STRATOSPHERIC GENERAL CIRCULATION MODEL, I: RADIATIVE AND DYNAMIC ASPECTS

MONTHLY WEATHER REVIEW (1968) VOL. 96, PAGES 477-502.

MANABE, S., AND R.T. WETHERALD

THERMAL EQUILIBRIUM OF THE ATMOSPHERE WITH A GIVEN DISTRIBUTION OF RELATIVE HUMIDITY

JOURNAL OF THE ATMOSPHERIC SCIENCES (1967) VOL. 24, PAGES 241-259.

MANTIS, H.T.

NOTE ON THE STRUCTURE OF THE STRATOSPHERE EASTERLIES OF MID-LATITUDE
JOURNAL OF APPLIED METEOROLOGY (1963) VOL. 2, PAGES 427-429.

MARTELL, E.A.

TUNGSTEN RADIOISOTOPE DISTRIBUTION AND STRATOSPHERIC TRANSPORT PROCESSES
JOURNAL OF THE ATMOSPHERIC SCIENCES (1968) VOL. 25, PAGES 113-125.

MASON, R.B., AND C.E. ANDERSON

SUMMER 100 MB ANTICYCLONE OVER SOUTHERN ASIA
PROCEEDINGS OF THE INTERNATIONAL SYMPOSIUM ON STRATOSPHERIC AND
MESOSPHERIC CIRCULATION (1963) INST. METEOROL. GEOPHYS., FREIEN UNIV.,
BERLIN, PAGES 153-161.

MCINTURFF, R.M., AND F.G. FINGER

THE COMPATIBILITY OF RADIOSONDE DATA AT STRATOSPHERIC LEVELS OVER THE
NORTHERN HEMISPHERE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION (1968) SILVER SPRING, MD.

MIERS, B.T.

ZONAL WIND REVERSAL BETWEEN 30 AND 80 KM OVER THE SOUTHWESTERN
UNITED STATES
JOURNAL OF THE ATMOSPHERIC SCIENCES (1963) VOL. 20, PAGES 87-93.

MILLER, A. J.

THE TRANSFER OF KINETIC ENERGY FROM THE TROPOSPHERE TO THE STRATOSPHERE
JOURNAL OF THE ATMOSPHERIC SCIENCES (1970) VOL. 27, PAGES 388-393.

MILLER, A.J., AND K.W. JOHNSON

ON THE INTERACTION BETWEEN THE STRATOSPHERE AND TROPOSPHERE DURING
THE WARMING OF DECEMBER 1967 - JANUARY 1968

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1970) VOL. 96,
PAGES 24-31.

MORELAND, W.R.

ANTARCTIC STRATOSPHERIC CIRCULATION AND OZONE OBSERVATIONS

ANTARCTIC METEOROLOGY (1960) PERGAMON PRESS, OXFORD, PAGES 394-409.

MORRIS, J.E., AND B.T. MIERS

CIRCULATION DISTURBANCES BETWEEN 25 AND 70 KM ASSOCIATED WITH THE
SUDDEN WARMING OF 1963

JOURNAL OF GEOPHYSICAL RESEARCH (1964) VOL. 69, PAGES 201-214.

MUENCH, H.S.

ON THE DYNAMICS OF THE WINTERTIME STRATOSPHERIC CIRCULATION

JOURNAL OF THE ATMOSPHERIC SCIENCES (1965) VOL. 22, PAGES 349-360.

MUENCH, H.S. AND T.R. BORDEN

ATLAS OF MONTHLY MEAN STRATOSPHERE CHARTS, 1955-1959

AIR FORCE SURVEYS IN GEOPHYSICS, NO. 141, PART 1: JANUARY-JUNE, PART 2:
JULY-DECEMBER.

MURGATROYD, R.J.

ESTIMATION FROM GEOSTROPHIC TRAJECTORIES OF HORIZONTAL DIFFUSIVITY IN
THE MID-LATITUDE TROPOSPHERE AND LOWER STRATOSPHERE

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1969) VOL. 95,
PAGES 40-62.

MURGATROYD, R.J., AND F. SINGLETON

POSSIBLE MERIDIONAL CIRCULATIONS IN THE STRATOSPHERE AND MESOSPHERE

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1961) VOL. 87,
PAGES 125-135.

MURRAY, F.W.

DYNAMIC STABILITY IN THE STRATOSPHERE

JOURNAL OF GEOPHYSICAL RESEARCH (1960) VOL. 65, PAGES 3273-3305.

NEWELL, R.E.

MODIFICATION OF STRATOSPHERIC PROPERTIES BY TRACE CONSTITUENT CHANGES

NATURE (1970) VOL. 227.

NEWELL, R.E.

TRANSFER THROUGH THE TROPOPAUSE AND WITHIN THE STRATOSPHERE

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1963) VOL. 89,
PAGES 167-204.

NEWELL, R.E.

THE TRANSPORT OF TRACER SUBSTANCES IN THE ATMOSPHERE AND THEIR
IMPLICATIONS FOR THE GENERAL CIRCULATION OF THE STRATOSPHERE

GEOPHYSICA PURA E APPLICATA (1961) VOL. 49, PAGES 137-158.

NEWELL, R.E., D.G. VINCENT, AND J.W. KIDSON

INTERHEMISPHERIC MASS EXCHANGE FROM METEOROLOGICAL AND TRACE SUBSTANCE
OBSERVATIONS

TELLUS (1969) VOL. 21, PAGES 641-647.

NEWTON, C.W., AND A.V. PERSSON

STRUCTURAL CHARACTERISTICS OF THE SUBTROPICAL JET STREAM AND CERTAIN
LOWER-STRATOSPHERIC WIND SYSTEMS

TELLUS (1962) VOL. 14, PAGES 221-241.

NICOLET, M.

DYNAMIC EFFECTS IN THE HIGH ATMOSPHERE

THE EARTH AS A PLANET (1954) (G.P. KUIPER, EDITOR) UNIVERSITY OF
CHICAGO, ILLINOIS, PAGES 644-712.

NITTA, T.

DYNAMICAL INTERACTION BETWEEN THE LOWER STRATOSPHERE AND THE
TROPOSPHERE

MONTHLY WEATHER REVIEW (1967) VOL. 95, PAGES 319-338.

OHRING, G., AND H.S. MUENCH

RELATIONSHIPS BETWEEN OZONE AND METEOROLOGICAL PARAMETERS IN THE
LOWER STRATOSPHERE

JOURNAL OF METEOROLQGY (1960) VOL. 17, PAGES 195-206.

OORT, A.H.

THE OBSERVED ANNUAL CYCLE IN THE MERIDIONAL TRANSPORT OF ATMOSPHERIC
ENERGY

JOURNAL OF THE ATMOSPHERIC SCIENCES (1971) VOL. 28, PAGES 325-339.

ORT, A.H.

ON THE ENERGETICS OF THE MEAN AND EDDY CIRCULATIONS IN THE LOWER STRATOSPHERE

TELLUS (1964) VOL. 16, PAGES 309-327.

PALMER, C.E.

THE GENERAL CIRCULATION BETWEEN 200 MB AND 10 MB OVER THE EQUATORIAL PACIFIC

WEATHER (1954) VOL. 9, PAGES 341-349.

PALMER, C.E.

THE STRATOSPHERIC POLAR VORTEX IN WINTER

JOURNAL OF GEOPHYSICAL RESEARCH (1959) VOL. 64, PAGES 749-764.

PALMER, C.E. AND R.C. TAYLOR

THE VERNAL BREAKDOWN OF THE STRATOSPHERIC CYCLONE OVER THE SOUTH POLE

JOURNAL OF GEOPHYSICAL RESEARCH (1960) VOL. 65, PAGES 3319-3329.

PANOFSKY, H.A., L. KRAWITZ, AND P.R. JULIAN

A STUDY AND EVALUATION OF RELATIONS BETWEEN TROPOSPHERIC AND STRATOSPHERIC FLOW

PENNSYLVANIA STATE UNIVERSITY (1958) FINAL REPORT N189 (188) 34785A.

PANT, P.S.

CIRCULATION IN THE UPPER ATMOSPHERE

JOURNAL OF GEOPHYSICAL RESEARCH (1956) VOL. 61, PAGES 459-474.

PATON, J.

DIRECT EVIDENCE OF VERTICAL MOTION IN THE ATMOSPHERE AT A HEIGHT OF ABOUT 80 KM PROVIDED BY PHOTOGRAPHS OF NOCTILUCENT CLOUDS

PROCEEDINGS OF THE TORONTO METEOROLOGY CONFERENCE (1953) ROYAL METEOROLOGICAL SOCIETY, LONDON, PAGES 31-33.

PAVLOVSKAYA, A.A.

INTERSEASONAL VARIATIONS OF ATMOSPHERIC CIRCULATION IN THE UPPER TROPOSPHERE AND LOWER STRATOSPHERE

TRUDY CENTRAL FESTG. INST. (1961) MOSCOW, NO. 104, PAGES 54-88.

PENG, L.

A SIMPLE NUMERICAL EXPERIMENT CONCERNING THE GENERAL CIRCULATION IN THE LOWER STRATOSPHERE

PURE AND APPLIED GEOPHYSICS (1965) VOL. 61, PAGES 197-218.

PERRY, J.S.

LONG WAVE ENERGY PROCESSES IN THE 1963 SUDDEN STRATOSPHERE WARMING
JOURNAL OF THE ATMOSPHERIC SCIENCES (1967) VOL. 24, PAGES 539-550.

POLOSKOV, S.M. AND B.A. MIRTOV

THE STUDY OF THE UPPER ATMOSPHERE BY MEANS OF ROCKETS, AT THE ACADEMY OF SCIENCES, U.S.S.R.

JOURNAL OF THE BRITISH INTERPLANETARY SOCIETY (1957) VOL. 16, PAGES 95-100.

RAKIPOVA, L.P.

POSSIBLE EFFECT OF DUST ON VERTICAL AIR MOVEMENTS AND ON ISOTHERMY IN THE STRATOSPHERE

IZVESTIJA AKADEMIJI NAUK SSSR (1947) VOL. 11, PAGE 15.

RAMANATHAN, K.R., AND K.P. RAMAKRISHNAM

DISTORTION OF THE TROPOPAUSE DUE TO MERIDIONAL MOVEMENTS IN THE SUBSTRATOSPHERE

NATURE (1933) VOL. 132, PAGE 932.

REED, R.J.

EVIDENCE OF GEOSTROPHIC MOTION IN THE EQUATORIAL STRATOSPHERE

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1962) VOL. 88, PAGES 324-327.

REED, R.J.

ON THE CAUSE OF THE 26-MONTHS PERIODICITY IN THE EQUATORIAL STRATOSPHERIC WINDS

PROCEEDINGS OF THE INTERNATIONAL SYMPOSIUM ON STRATOSPHERIC AND MESOSPHERIC CIRCULATION (1963) INST. METEOROL. GEOPHYS., FREIEN UNIV., BERLIN, PAGES 245-259.

REED, R.J.

SEMIDIURNAL TIDAL MOTIONS BETWEEN 30 AND 60 KM

JOURNAL OF THE ATMOSPHERIC SCIENCES (1967) VOL. 24, PAGES 315-317.

REED, R.J., AND K.E. GERMAN

A CONTRIBUTION TO THE PROBLEM OF STRATOSPHERIC DIFFUSION BY LARGE-SCALE MIXING

MONTHLY WEATHER REVIEW (1965) VOL. 93, PAGES 313-321.

REED, R.J., AND D.G. ROGERS

THE CIRCULATION OF THE TROPICAL STRATOSPHERE IN THE YEARS 1954-1960

JOURNAL OF THE ATMOSPHERIC SCIENCES (1962) VOL. 19, PAGES 127-135.

REED, R.J., J.M. MERCER, AND R.V. CORMIER

A CLIMATOLOGY OF WIND AND TEMPERATURES IN THE TROPICAL STRATOSPHERE BETWEEN 100 MB AND 10 MB

U.S. NAVY WEATHER RESEARCH FACILITY (1964) NORFOLK, VIRGINIA, NWRP 26-0564-092, 56 PAGES.

REED, R.J., W.J. CAMPBELL, L.A. RASMUSSEN AND D.G. ROGERS

EVIDENCE OF A DOWNWARD-PROPAGATING, ANNUAL WIND REVERSAL IN THE EQUATORIAL STRATOSPHERE

JOURNAL OF GEOPHYSICAL RESEARCH (1961) VOL. 66, PAGES 813-818.

REITER, E.R.

ATMOSPHERIC TRANSPORT PROCESSES, PART I: ENERGY TRANSFERS AND TRANSFORMATIONS

NATIONAL TECHNICAL INFORMATION SERVICE (1969) REPORT NO. TID-24868, U.S. DEPARTMENT OF COMMERCE, SPRINGFIELD, VIRGINIA.

REITER, E.R.

ATMOSPHERIC TRANSPORT PROCESSES, PART II: CHEMICAL TRACERS

NATIONAL TECHNICAL INFORMATION SERVICE (1971) REPORT NO. TID-25314,
U.S. DEPARTMENT OF COMMERCE, SPRINGFIELD, VIRGINIA, 388 PAGES.

REITER, E.R.

NATURE AND OBSERVATION OF HIGH-LEVEL TURBULENCE ESPECIALLY IN CLEAR AIR

COLORADO STATE UNIVERSITY (1962) FORT COLLINS, COLORADO, CONTRACT
N189(188)55120A, 28 PAGES.

REITER, E.R., M.E. GLASSER, AND J.D. MAHLMAN

THE ROLE OF THE TROPOPAUSE IN STRATOSPHERIC-TROPOSPHERIC EXCHANGE
PROCESSES

ATMOSPHERIC SCIENCE PAPER NUMBER 107 (1967) COLORADO STATE UNIVERSITY,
FORT COLLINS, PAGE 80.

RIEHL, H.

VARIATIONS IN THE STRUCTURE OF HIGH-LEVEL CYCLONES

BULLETIN OF THE AMERICAN METEOROLOGICAL SOCIETY (1950) VOL. 31, PAGES
291-294.

RIEHL, H. AND R. HIGGS

UNREST IN THE UPPER STRATOSPHERE OVER THE CARIBBEAN SEA DURING
JANUARY 1960

JOURNAL OF METEOROLOGY (1960) VOL. 17, PAGES 555-561.

ROBERTS, W.O.

DOES VARIABLE SOLAR ACTIVITY AFFECT STRATOSPHERIC CIRCULATION

PROCEEDINGS OF THE INTERNATIONAL SYMPOSIUM ON STRATOSPHERIC AND
MESOSPHERIC CIRCULATION (1963) INST. METEOROL. GEOPHYS., FREIEN UNIV.,
BERLIN, PAGES 341-352.

RUBIN, M.J.

SEASONAL VARIATION OF THE ANTARCTIC TROPOPAUSE

JOURNAL OF METEOROLOGY (1953) VOL. 10, PAGES 127-134.

SEILER, W., AND C. JUNGE

DECREASE OF CARBON MONOXIDE MIXING RATIO ABOVE THE POLAR TROPOPAUSE

TELLUS (1969) VOL. 21, PAGES 477-449.

SHEPPARD, P.A.

DYNAMICS OF THE UPPER ATMOSPHERE

JOURNAL OF GEOPHYSICAL RESEARCH (1959) VOL. 64, PAGES 2116-2121.

SINGER, S.F.

RESEARCH IN THE UPPER ATMOSPHERE WITH HIGH ALTITUDE SOUNDING
ROCKETS

JOURNAL OF ATMOSPHERIC AND TERRESTRIAL PHYSICS (1956) VOL. 4, PAGES
878-912.

SMITH, R.M.

A PREVIEW ON THE DETERMINATION OF MASS RETURN FLOW OF AIR AND WATER
VAPOR INTO THE STRATOSPHERE USING TRITIUM AS A TRACER

TELLUS (1968) VOL. 20, PAGES 76-81.

STALEY, D.O.

EVALUATION OF POTENTIAL-VORTICITY CHANGES NEAR THE TROPOPAUSE AND THE RELATED VERTICAL MOTIONS, VERTICAL ADVECTION OF VORTICITY, AND TRANSFER OF RADIOACTIVE DEBRIS FROM STRATOSPHERE TO TROPOSPHERE

JOURNAL OF METEOROLOGY (1960) VOL. 17, PAGES 591-620.

STALEY, D.O.

ON THE MECHANISM OF MASS AND RADIOACTIVITY TRANSPORT FROM STRATOSPHERE TO TROPOSPHERE

JOURNAL OF THE ATMOSPHERIC SCIENCES (1962) VOL. 19, PAGES 450-467.

STARR, V.P.

QUESTIONS CONCERNING THE ENERGY OF STRATOSPHERIC MOTIONS

ARCHIV. FEUR MET. GEOPHYS. UND BIOKL. (1960) VOL. 12, PAGES 1-7.

TEMELES, S.

STRUCTURE AND CIRCULATION OF THE STRATOSPHERE

TRANSACTIONS OF THE AMERICAN GEOPHYSICAL UNION (1959) VOL. 40, PAGES 84-88.

TEMELES, S., AND F.G. FINGER

AN ABRUPT CHANGE IN STRATOSPHERIC CIRCULATION BEGINNING IN MID-JANUARY, 1958

MONTHLY WEATHER REVIEW (1958) VOL. 86, PAGES 23-28.

TENELES, S., L. ROTHENBERG, AND F.G. FINGER

THE CIRCULATION AT THE 10 MILLIBAR CONSTANT PRESSURE SURFACE OVER
NORTH AMERICA AND ADJACENT OCEAN AREAS, JULY 1957 THROUGH JUNE 1958

MONTHLY WEATHER REVIEW (1960) VOL. 88, PAGES 137-149.

TROWBRIDGE, C.C.

ON ATMOSPHERIC CURRENTS AT VERY GREAT ALTITUDES

MONTHLY WEATHER REVIEW (1907) VOL. 35, PAGES 390-397.

VAN LOON, H.

A CLIMATOLOGICAL STUDY OF THE ATMOSPHERIC CIRCULATION IN THE SOUTHERN
HEMISPHERE DURING THE IGY, PART I AND II

JOURNAL OF APPLIED METEOROLOGY (1967) VOL. 4, PAGES 479-491 AND VOL. 6,
PAGES 803-815.

VAN MIEGHEM, J.

NEW ASPECTS OF THE GENERAL CIRCULATION OF THE STRATOSPHERE AND
MESOSPHERE

PROCEEDINGS OF THE INTERNATIONAL SYMPOSIUM ON STRATOSPHERIC AND
MESOSPHERIC CIRCULATION (1963) INST. METEOROL. GEOPHYS., FREIEN UNIV.,
BERLIN, PAGES 5-63.

VERYARD, R.G.

FLUCTUATIONS IN STRATOSPHERIC WINDS OVER AUSTRALIA

THE METEOROLOGICAL MAGAZINE (1961) VOL. 90, PAGE 295.

VERYARD, R.G., AND R.A. EBDON

FLUCTUATIONS IN TROPICAL STRAOSPHERIC WINDS

THE METEOROLOGICAL MAGAZINE (1961) VOL. 90, PAGES 125-143.

VERYARD, R.G., AND R.A. EBDON

THE 26-MONTH TROPICAL STRATOSPHERIC WIND OSCILLATION AND POSSIBLE CAUSES

PROCEEDINGS OF THE INTERNATIONAL SYMPOSIUM ON STRATOSPHERIC AND MESOSPHERIC CIRCULATION (1963) INST. METEOROL. GEOPHYS., FREIEN UNIV., BERLIN, PAGES 225-245.

VINCENT, D.G.

MEAN MERIDIONAL CIRCULATION IN THE NORTHERN HEMISPHERE LOWER STRATOSPHERE DURING 1964 AND 1965

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1968) VOL. 94, PAGES 333-349.

WARFIELD, C.N.

TENTATIVE TABLES FOR THE PROPERTIES OF THE UPPER ATMOSPHERE

NAT. ADV. COMM. TECH. NOTES NO. 1200 (1947).

WEBB, W.L.

THE DYNAMIC STRATOSPHERE

ASTRONAUTICAL AEROSPACE ENGINEERING (1964) VOL. 2, PAGES 62-68.

WEBB, W.L.

SCALE OF STRATOSPHERIC DETAIL STRUCTURE

SPACE RESEARCH V (1965) (D.G. KING-HELE, P. MULLER, AND G. RIGHINI, EDITORS), NORTH-HOLLAND PUBLICATIONS, AMSTERDAM, PAGES 997-1007.

WEINERT, R.A.

THE MOVEMENT AND DISPERSION OF VOLCANIC DUST FROM THE ERUPTION OF MOUNT AGUNG

AUSTRALIAN METEOROLOGICAL MAGAZINE (1967) VOL. 15, PAGES 225-229.

WEXLER, H.

SPREAD OF THE KRAKATOA VOLCANIC DUST CLOUD AS RELATED TO THE HIGH-LEVEL CIRCULATION

BULLETIN OF THE AMERICAN METEOROLOGICAL SOCIETY (1951) VOL. 32, PAGES 48-51.

WHIPPLE, F.L.

EXPLORATION OF THE UPPER ATMOSPHERE BY METEORITIC TECHNIQUES

ADVANCES IN GEOPHYSICS (1952) VOL. 1, PAGES 119-154.

WILSON, C.V. AND W.L. GUDSON

THE STRUCTURE OF THE ARCTIC WINTER STRATOSPHERE OVER A 10-YEAR PERIOD

QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (1963) VOL. 89, PAGES 205-244.

WODDBRIDGE, D.D.

IONOSPHERIC WINDS

JOURNAL OF GEOPHYSICAL RESEARCH (1962) VOL. 67, PAGES 4221-4231.

S. 1881

92D CONGRESS 1ST SESSION

A BILL

TO AMEND THE FEDERAL AVIATION ACT OF 1958 TO PROVIDE FOR INDEPENDENT SCIENTIFIC STUDIES OF THE IMPACT OF CIVIL SUPERSONIC AIRCRAFT UPON THE ENVIRONMENT; TO PROHIBIT THE OPERATION OF ANY CIVIL SUPERSONIC AIRCRAFT WITHIN THE TERRITORIAL JURISDICTION OF THE UNITED STATES UNTIL AND UNLESS THE CONGRESS DETERMINES FROM INDEPENDENT SCIENTIFIC STUDIES THAT THE OPERATION OF CIVIL SUPERSONIC AIRCRAFT WILL NOT HAVE IMMEDIATE OR LONG-RANGE ADVERSE EFFECTS UPON THE ENVIRONMENT AND FOR OTHER PURPOSES.

BE IT ENACTED BY THE SENATE AND HOUSE OF REPRESENTATIVES OF THE UNITED STATES OF AMERICA IN CONGRESS ASSEMBLED,

SHORT TITLE

SECTION 1. THIS ACT MAY BE CITED AS THE 'SUPERSONIC ENVIRONMENTAL PROTECTION ACT'.

DECLARATION OF POLICY AND PURPOSE

SEC. 2. THE CONGRESS FINDS AND DECLARES THAT--

(A) INTERNATIONAL AIR CARRIERS OF THE WORLD ARE AT VARIOUS STAGES OF PLANNING THE PURCHASE OF CIVIL SUPERSONIC AIRCRAFT WHICH WILL OPERATE IN INTERNATIONAL COMMERCE AT STRATOSPHERIC LEVELS AND SUPERSONIC SPEEDS AND WILL FLY WITHIN THE TERRITORIAL JURISDICTION OF THE UNITED STATES;

(B) THE OPERATION OF CIVIL SUPERSONIC AIRCRAFT WILL INJECT INTO THE STRATOSPHERE QUANTITIES OF WATER VAPOR, SULFUR DIOXIDE, HYDROCARBONS,

AND OTHER SOLID OR GASEOUS SUBSTANCES WHICH MAY COMPROMISE THE STABILITY AND INTEGRITY OF THE STRATOSPHERE AND HAVE A DELETERIOUS EFFECT UPON THE EARTH'S CLIMATE;

(C) THE OPERATION OF CIVIL SUPERSONIC AIRCRAFT PRODUCES THE PHENOMENA OF SONIC BOOMS, A CONTINUOUS SERIES OF SHORT, SHARP SHOCK WAVES AT THE SURFACE OF THE EARTH BENEATH THE AIRCRAFT'S FLIGHT PATH, WHICH MAY HAVE SERIOUS DETRIMENTAL EFFECTS UPON THE HUMAN AND ANIMAL POPULATIONS AND THE ECOLOGY OF THE AREA OF THE EARTH SUBJECTED TO CONTINUOUS REPETITION OF SONIC BOOMS;

(D) THE OPERATION OF CIVIL SUPERSONIC AIRCRAFT WOULD PRODUCE INCREASED LEVELS OF NOISE IN AREAS ADJACENT TO POINTS OF LANDING AND TAKEOFF;

(E) THE FULL NATURE AND EXTENT OF THE ENVIRONMENTAL IMPACT AND THE ECOLOGICAL CONSEQUENCES WHICH MAY RESULT FROM THE OPERATION OF CIVIL SUPERSONIC AIRCRAFT IN INTERNATIONAL COMMERCE AND WITHIN THE TERRITORIAL JURISDICTION OF THE UNITED STATES ARE UNRESOLVED;

(F) THE ENVIRONMENTAL IMPACT AND ECOLOGICAL CONSEQUENCES WHICH MAY RESULT FROM THE OPERATION OF CIVIL SUPERSONIC AIRCRAFT ARE OF A NATIONAL AND GLOBAL DIMENSION;

(G) THE PRESERVATION AND IMPROVEMENT OF NATIONAL AND GLOBAL ENVIRONMENTAL QUALITY ARE OF THE HIGHEST ORDER OF PRIORITY AND NECESSITY;

(H) THE UNITED STATES SHOULD PROMOTE COOPERATIVE INTERNATIONAL EFFORTS TO RESOLVE ALL ISSUES PERTAINING TO THE OPERATION OF CIVIL SUPERSONIC AIRCRAFT IN INTERNATIONAL COMMERCE AND, IN PARTICULAR, SHOULD PROVIDE INTERNATIONAL LEADERSHIP TO PRESERVE THE WORLD ENVIRONMENT FROM UNFORESEEN OR IGNORED CONSEQUENCES OF THE OPERATION OF CIVIL SUPERSONIC AIRCRAFT;

(I) CONGRESS SHOULD CREATE A COMMISSION OF QUALIFIED INDEPENDENT SCIENTISTS TO CONDUCT FULL AND COMPREHENSIVE STUDIES OF THE ENVIRONMENTAL AND ECOLOGICAL IMPACT--BOTH IMMEDIATE AND LONG RANGE; GLOBAL AS WELL AS NATIONAL--OF THE OPERATION OF CIVIL SUPERSONIC AIRCRAFT IN INTERNATIONAL COMMERCE; AND

(J) THE OPERATION OF ANY CIVIL SUPERSONIC AIRCRAFT WITHIN THE TERRITORIAL JURISDICTION OF THE UNITED STATES SHOULD BE PROHIBITED UNTIL AND UNLESS THE CONGRESS DETERMINES FROM THE REPORT(S) OF THE COMMISSION OF QUALIFIED INDEPENDENT SCIENTISTS THAT THE OPERATION OF CIVIL SUPERSONIC AIRCRAFT WILL NOT HAVE IMMEDIATE OR LONG-RANGE ADVERSE EFFECTS UPON THE NATIONAL OR GLOBAL ENVIRONMENT.

SEC. 3. (A) TITLE VI OF THE FEDERAL AVIATION ACT OF 1958, AS AMENDED (49 U.S.C. 1421-1431), IS AMENDED BY ADDING AT THE END THEREOF THE FOLLOWING NEW SECTIONS:

'ENVIRONMENTAL QUALIFICATIONS FOR OPERATION OF CIVIL SUPERSONIC AIRCRAFT

'DEFINITIONS

'SEC. 612. (A) FOR PURPOSES OF THIS SECTION AND SECTION 613--

'(1) THE TERM 'CIVIL SUPERSONIC AIRCRAFT' MEANS ANY AIRCRAFT DESIGNED AND INTENDED FOR OPERATION IN CIVIL AVIATION AT SUPERSONIC SPEEDS;

'(2) THE TERM 'SUPERSONIC SPEED' MEANS A SPEED IN EXCESS OF THE SPEED OF SOUND AT THE ALTITUDE AT WHICH AN AIRCRAFT IS OPERATING;

'(3) THE TERM 'STRATOSPHERE' MEANS THE UPPER PORTION OF THE ATMOSPHERE, ABOVE SEVEN MILES, MORE OR LESS (DEPENDING ON LATITUDE, SEASON, AND WEATHER), IN WHICH TEMPERATURE CHANGES BUT LITTLE WITH ALTITUDE AND CLOUDS OF WATER NEVER FORM NATURALLY;

'(4) THE TERM 'SONIC BOOM' MEANS THE SHOCKWAVE PRODUCED AND APPARENT AT THE SURFACE OF THE EARTH, CONSISTING OF A WAVE OF SHORT, SHARP INCREASES IN ATMOSPHERIC PRESSURE (KNOWN AS 'OVERPRESSURE' AND USUALLY MEASURED IN THE UNITED STATES IN POUNDS PER SQUARE FOOT) AT A GIVEN POINT, CREATED BY THE OPERATION OF AN AIRCRAFT AT SUPERSONIC SPEED;

'(5) THE TERM 'STRATOSPHERIC POLLUTION' MEANS THE EMISSION INTO THE STRATOSPHERE BY A CIVIL SUPERSONIC AIRCRAFT, IN ANY QUANTITY WHATEVER, OF WATER VAPOR, SULFUR DIOXIDE, HYDROCARBONS, OR OTHER SOLID OR GASEOUS SUBSTANCES NOT FOUND OR OCCURRING IN THE STRATOSPHERE IN NATURE, OR THE EMISSION INTO THE STRATOSPHERE OF SUBSTANCES FOUND OR OCCURRING THERE IN NATURE IN QUANTITIES, QUALITIES, OR MIXTURES DETRIMENTALLY LARGER THAN OR DIFFERENT FROM THOSE WHICH ARE FOUND OR OCCUR IN NATURE.

'PROHIBITION

'(B) NO CIVIL SUPERSONIC AIRCRAFT SHALL BE OPERATED WITHIN THE TERRITORIAL JURISDICTION OF THE UNITED STATES UNTIL AND UNLESS THE CONGRESS DETERMINES FROM INDEPENDENT SCIENTIFIC STUDIES, AND UPON RECEIPT OF THE FINAL REPORT OF THE CIVIL SUPERSONIC ENVIRONMENTAL STUDY COMMISSION, AS PROVIDED FOR IN SECTION 613, THAT THE OPERATION OF CIVIL SUPERSONIC AIRCRAFT WILL NOT HAVE IMMEDIATE OR LONG-RANGE ADVERSE EFFECTS UPON THE ENVIRONMENT.

S. 1881---2

'CIVIL SUPERSONIC ENVIRONMENTAL STUDY COMMISSION

'SEC. 614. (A) THERE IS HEREBY ESTABLISHED A COMMISSION TO BE KNOWN AS THE 'CIVIL SUPERSONIC ENVIRONMENTAL COMMISSION' (HEREINAFTER REFERRED TO AS THE 'COMMISSION').

'(B) (1) THE COMMISSION SHALL CONSIST OF NINE MEMBERS, APPOINTED BY THE PRESIDENT FROM A LIST OF INDIVIDUALS SUBMITTED TO THE COUNCIL ON ENVIRONMENTAL QUALITY BY THE NATIONAL ACADEMY OF SCIENCE, AND THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE. THE INDIVIDUAL MEMBERS SHALL BE SCIENTIFICALLY QUALIFIED, PREFERABLY WITH EXPERTISE IN THE FIELDS OF AERONAUTICS OR THE ENVIRONMENT, OR BOTH, AND SHALL NOT HAVE HAD ANY PREVIOUS MAJOR INVOLVEMENT IN THE CIVIL SUPERSONIC PROGRAM.

'(2) THE PRESIDENT SHALL, AT THE TIME OF APPOINTMENT, DESIGNATE ONE MEMBER OF THE COMMISSION AS CHAIRMAN AND ONE MEMBER OF THE COMMISSION AS VICE CHAIRMAN.

'(3) A MAJORITY OF THE MEMBERS OF THE COMMISSION SHALL CONSTITUTE A QUORUM, BUT A LESSER NUMBER MAY CONDUCT HEARINGS.

'(4) A VACANCY IN THE COMMISSION SHALL NOT AFFECT ITS POWERS, BUT SHALL BE FILLED BY APPOINTMENT OF THE PRESIDENT.

'(C) (1) MEMBERS OF THE COMMISSION SHALL EACH RECEIVE \$100 PER DIEM WHEN ENGAGED IN THE ACTUAL PERFORMANCE OF DUTIES VESTED IN THE COMMISSION.

'(2) ALL MEMBERS OF THE COMMISSION SHALL BE ALLOWED TRAVEL EXPENSES, INCLUDING PER DIEM IN LIEU OF SUBSISTENCE, AS AUTHORIZED BY SECTION 5703 OF TITLE 5, UNITED STATES CODE, FOR PERSONS IN THE GOVERNMENT SERVICE EMPLOYED INTERMITTENTLY.

'(D) (1) THE COMMISSION SHALL CONDUCT A COMPREHENSIVE STUDY OF THE PROBABLE AND ACTUAL IMPACT OF THE OPERATION OF CIVIL SUPERSONIC AIRCRAFT UPON THE ENVIRONMENT, WITH PARTICULAR ATTENTION BEING GIVEN TO THE POSSIBLE LONG-RANGE GLOBAL EFFECTS, AND SHALL MAKE RECOMMENDATIONS TO THE CONGRESS FOR THE PROTECTION OF THE ENVIRONMENT FROM ANY POSSIBLE ADVERSE CONSEQUENCES OF THE OPERATION OF CIVIL SUPERSONIC AIRCRAFT.

'(2) WITHIN THREE YEARS AFTER THE DATE OF ENACTMENT OF THIS ACT, UNLESS CONGRESS DECIDES THAT MORE TIME IS REQUIRED, THE COMMISSION SHALL REPORT TO THE CONGRESS ITS FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS. THE COMMISSION IS ALSO DIRECTED TO MAKE ANNUAL INTERIM REPORTS TO THE CONGRESS, AND ALL REPORTS OF THE COMMISSION SHALL BE MADE PUBLIC. THE COMMISSION SHALL TERMINATE THIRTY DAYS AFTER THE DATE ON WHICH IT SUBMITS ITS FINAL REPORT TO THE CONGRESS.

'(3) THE COMMISSION SHALL MEET AT THE CALL OF THE CHAIRMAN OR AT THE CALL OF A MAJORITY OF THE MEMBERS SERVING ON THE COMMISSION.

'(F) IN ORDER TO CARRY OUT THE PURPOSES OF THIS SECTION, THE COMMISSION IS AUTHORIZED--

'(1) TO APPOINT AND FIX THE COMPENSATION OF SUCH PERSONNEL AS MAY BE NECESSARY, WITHOUT REGARD TO THE PROVISIONS OF TITLE 5, UNITED STATES CODE, GOVERNING APPOINTMENTS IN THE COMPETITIVE SERVICE, AND WITHOUT REGARD TO THE PROVISIONS OF CHAPTER 51 AND SUBCHAPTER III OF CHAPTER 53 OF SUCH TITLE RELATING TO CLASSIFICATION AND GENERAL SCHEDULE PAY RATES, AT RATES NOT IN EXCESS OF THE MAXIMUM RATE FOR GS-18 OF THE GENERAL SCHEDULE UNDER SECTION 5332 OF SUCH TITLE; AND

'(2) TO OBTAIN THE SERVICES OF EXPERTS AND CONSULTANTS, IN ACCORDANCE WITH THE PROVISIONS OF SECTION 3109 OF TITLE 5, UNITED STATES CODE, AT RATES FOR INDIVIDUALS NOT TO EXCEED \$75 PER DAY FOR EACH DAY (INCLUDING TRAVEL TIME) DURING WHICH THEY ARE ENGAGED IN THE ACTUAL PERFORMANCE OF THEIR DUTIES FOR THE COMMISSION. WHILE TRAVELING ON OFFICIAL BUSINESS IN THE PERFORMANCE OF DUTIES FOR THE COMMISSION SUCH PERSONS SO EMPLOYED SHALL BE ALLOWED EXPENSES OF TRAVEL, INCLUDING PER DIEM INSTEAD OF SUBSISTENCE, IN ACCORDANCE WITH SECTION 5703 OF TITLE 5, UNITED STATES CODE.

'(G) THE COMMISSION IS AUTHORIZED TO REQUEST FROM ANY FEDERAL DEPARTMENT OR AGENCY ANY INFORMATION AND ASSISTANCE IT DEEMS NECESSARY TO CARRY OUT ITS

FUNCTIONS; AND SUCH DEPARTMENT OR AGENCY SHALL COOPERATE WITH THE COMMISSION AND, TO THE EXTENT PERMITTED BY LAW, FURNISH SUCH INFORMATION AND ASSISTANCE TO THE COMMISSION UPON REQUEST MADE BY THE CHAIRMAN OR ANY OTHER MEMBER WHEN ACTING AS CHAIRMAN.

'(H) THE GENERAL SERVICES ADMINISTRATION SHALL PROVIDE ADMINISTRATIVE SERVICES FOR THE COMMISSION ON A REIMBURSABLE BASIS.

'(I) THERE ARE AUTHORIZED TO BE APPROPRIATED TO THE COMMISSION SUCH SUMS, NOT IN EXCESS OF \$27,000,000 FOR ANY FISCAL YEAR, AS MAY BE NECESSARY TO CARRY OUT THE PROVISIONS OF THIS SECTION.'

(B) THAT PORTION OF THE TABLE OF CONTENTS OF THE FEDERAL AVIATION ACT OF 1958 RELATING TO TITLE VI IS AMENDED BY INSERTING AT THE END THEREOF THE FOLLOWING:

'SEC. 612. ENVIRONMENTAL QUALIFICATIONS FOR OPERATION OF CIVIL SUPERSONIC AIRCRAFT.

SEC. 613. CIVIL SUPERSONIC ENVIRONMENTAL STUDY COMMISSION.'

REQUIREMENT FOR SPECIFIC AUTHORIZATION FOR APPROPRIATIONS FOR THE DEVELOPMENT OF CIVIL SUPERSONIC AIRCRAFT

SEC. 4 EFFECTIVE FOR FISCAL YEARS BEGINNING AFTER JUNE 30, 1971, NO APPROPRIATION SHALL BE MADE FOR ANY FISCAL YEAR FOR THE DEVELOPMENT OF ANY CIVIL SUPERSONIC AIRCRAFT UNLESS SPECIFICALLY AUTHORIZED FOR SUCH PURPOSE AND FOR SUCH YEAR BY ACT OF CONGRESS.