The Gerard K. O'Neill Collection Finding Aid

by Tyler Love

2014

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Collection Overview

Repository: National Air and Space Museum Archives Division
Creator: O'Neill, Gerard Kitchen, Dr.
Title: Gerard K. O'Neill Collection
Dates: 1940s-1993
Quantity: 35.14 linear feet
26.22 cubic feet, (75 Boxes)
Abstract: Gerard Kitchen O'Neill (1927-1992) was an experimental physicist, educator, inventor, entrepreneur, writer and novelist.
Language: English

Administrative Information

Acquisition Information
Tasha O'Neill, Gift, 2013

Processing Information
File unit titles are original except in cases of titles appearing in brackets which are the processing archivists'.

Series and subseries was determined by the archivist based on existing groupings.

Gerard O'Neill was highly organized with his papers and that organization has been preserved. Almost all folders were labeled by Dr. O'Neill though in a few cases original labels had dried up and fallen off. Some later folders appeared to be labeled by someone else. Commonly, there were hanging folders that served to group together individual folders. In these cases, the file units are named after the hanging folder's broader title and the individual folders are physically reproduced on acid-free paper within the file unit's contents.

Preferred Citation

Restrictions on Access
No restrictions on access.

Ownership & Literary Rights
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Biographical Note

Gerard Kitchen O'Neill (1927-1992) was an experimental physicist, educator, inventor, entrepreneur, writer and novelist.

Gerard K. O'Neill joined the Navy at age 17, served as a radar technician from 1944 to 1946, graduated from Swarthmore College in 1950 with high honors in Physics, and received his Ph.D. in Physics from Cornell University in 1954. He went to Princeton University in that year as an Assistant Professor, becoming a Full Professor of Physics in 1965. In the 1976-77 academic year he received the honor of serving as the Jerome Clarke Hunsaker Professor of Aerospace at the Massachusetts Institute of Technology. He retired from Princeton in 1985 as professor emeritus.

Dr. O'Neill's main research area was high-energy particle physics and he initiated and led large-scale projects in accelerator construction. In 1956 he invented the storage-ring technique for colliding particle beams, a method which is now the basis for nearly every new high-energy particle accelerator. In 1976 he built his first Mass Driver prototype.

Dr. O'Neill was a pioneer in the field of space colonization; his studies on the humanization of space began in 1969 as a result of his undergraduate teaching at Princeton, and one of his four books, *The High Frontier*, detailed his vision of humanity's movement into Earth-like habitats constructed in space. *The High Frontier* won the Phi Beta Kappa Award as the best science book of 1977. He also authored *2081: A Hopeful View of the Human Future*, *The Technology Edge: Opportunities for America in World Competition* and co-authored a graduate textbook, *Introduction to Elementary Particle Physics*.

In 1977 following the success of *The High Frontier*, Dr. O'Neill founded the non-profit Space Studies Institute. SSI's research included work on mass drivers and the Lunar Polar Probe (renamed Lunar Prospector and flown by NASA.)

In 1967 Dr. O'Neill was a finalist, though ultimately not selected, for NASA's Astronaut Group 6, a group of scientist-astronauts to be given assignments in the Apollo Program. He returned to NASA throughout 1975-1977 to led studies on space habitats and space manufacturing; he testified twice before Congress during that time. In 1985, he was appointed by President Reagan to the National Commission on Space.

In 1983 Dr. O'Neill founded the Geostar Corporation, a satellite based positioning and communication system, based on a patent issued to him.

In 1986, O'Neill founded O'Neill Communications, Inc. which developed LAWN, a local area network device using radio waves and still in use today.

At the time of his death, Dr. O'Neill was working on a form of high-speed ground-based transportation he called "Magnetic Flight" with another company he founded, VSE International.

Dr. O'Neill was an instrument-rated pilot with some 2,500 hours of time in powered aircraft and held the Triple Diamond Badge of the Federation of the Aeronautique Internationale for sail plane flights. He was active in ultralight aircraft aviation and a member of the Experimental Aircraft Association. On most of his travels in connection with research and lectures, he piloted his own small plane.

Dr. O'Neill died from leukemia in 1992; the Clementine Mission of 1994 was dedicated to him.
Scope and Content Note

Materials in this collection include notes, business papers, patents, calendar planners, reports, a thesis, correspondence, book drafts, screenplay drafts, university publications, magazines, magazine articles, newspaper articles, glass & 35mm images, photographs, a rolodex.

The researcher should note that the collection also contains VHS tapes and audio cassettes. These items are not included in the container list but a NASM Archives staff person can assist you regarding access.

Arrangement

Organized into 5 series:

• Series 1: Professional Papers
• Series 2: Publications & Reports
• Series 3: Personal Papers
• Series 4: Images
• Series 5: Odd & Oversize

Names and Subject Terms

This collection is indexed in the online catalog of the Smithsonian Institution under the following terms:

Subjects:

Astronautics
Books
GPS receivers
Giders (Aeronautics)
Physics
Satellites
Space colonies
Space sciences
Space stations

Types of Materials:

Book drafts
Clippings
Correspondence
Magazines (periodicals)--20th century
Movie scripts

Geographic Names:

Moon--Exploration
Container Listing

Series 1: Professional Papers, 1940s-1993
55 boxes; Box 1-55

1.1: Academia, 1940s-1983

1.1.1: Academic Research, 1940s-1981
These materials were grouped together by the creator; file unit names are the creator's unless in brackets, which signifies that the processing archivist named the file unit. Processing archivist arranged file units chronologically.

Box 1, Folder 1 Physics I Lab Notes, 1940s
Box 1, Folder 2-4 [Gerard O'Neill, Student], 1940s-1950s
3 folders
Notes, notebooks, quizzes, papers, handouts.
Box 1, Folder 5 [Newburgh Free Academy Diploma], 1944
Box 1, Folder 6 CBX [Colliding Beam Experiment] Run Notebook, 1949-1963
Box 1, Folder 7-9 1960s Work on Storage Rings, 1949-1967
3 folders
Includes drawings.

Box 2, Folder 1 [Swarthmore College Commencement Materials], 1950
Box 2, Folder 2 Princeton - Stamford Experiment [Colliding Beam Experiment], 1951-1965
Box 2, Folder 3 [Time of Flight Measurements on the Inelastic Scattering of 14.8 MEV Neutrons - Gerard O'Neill's Thesis], 1954
Box 2, Folder 4 [Russian Language Study Notebook], circa 1955?
Box 2, Folder 5-6 1950's Work on Storage Rings [Notebook], 1956
2 folders
Box 2, Folder 7-8 1950's Work on Storage Rings, 1956-1985
Correspondence, articles, essays, photo and publications: Nucleus 1962; Scientific American 1966.
Box 2, Folder 9 [Series of Selected Papers in Physics - Electronics in Nuclear Physics published by the Physical Society of Japan], 1957
Box 2, Folder 10 [The Physical Review Vol.115 No.3], 1959
With "Intersecting-Beam Systems with Storage Rings" by Gerard O'Neill and E.J. Woods.
Box 3, Folder 1  [Drawing : "Proposed Plot Plan of New Prin-Penn Accelerator"], 1956
Box 3, Folder 2-4  Colliding Beam Experiment (CBX) Notebooks, 1963-1964
  3 folders
Box 3, Folder 5  CBX [Colliding Beam Experiment] - Run Data & Detector Notes,
  1963-1964
  Includes photos.
Box 3, Folder 6  Princeton - Office of Public Information, 1965
  Press releases, newspaper articles on Colliding Beam Experiment.
Box 3, Folder 7  [Papers/Presentations re: Colliding Beam Experiment], 1966-1970
Box 3, Folder 8-9  CBX [Colliding Beam Experiment] Correspondence with University,
  1975-1981
Box 4, Folder 1  Proposal Sections & Copies, UNDATED
Box 4, Folder 2  Reports by Federbush, UNDATED

1.1.2: Teaching Materials, 1973-1983
These materials were grouped together by the creator; file unit names are the creator's unless
in brackets, which signifies that the processing archivist named the file unit. Processing archivist
arranged file units chronologically.

Box 4, Folder 3  Reference Articles - Physics III - II2, 1973-1981
Box 4, Folder 4  Physics III/II2 General Info from Earlier Years, 1979-1980
Box 4, Folder 5  Physics III Lectures & Quizzes 1979-80, 1979-1980
  Contains transparency and color slide.
Box 4, Folder 6  Physics II2 1979-80, 1979-1980
Box 4, Folder 7  Source Material, 1980
Box 4, Folder 9  Lectures 1982-3, 1980-1983
Box 4, Folder 10  Physics II2 1980-1, 1981-1983
Box 5, Folder 1  Physics III & Physics II2 1982-3 Term Paper Topics, 1981-1983
Box 5, Folder 2  Course Meetings, 1982-1983
Box 5, Folder 3  Physics III - Physics II2 1982-3, 1982-1983
Box 5, Folder 4  [Physics Class Material - Miscellaneous], 1982-1983
Box 5, Folder 5  Quizzes & Practice Problems Current Course, 1982-1983
Box 5, Folder 6 [Physics III 1982-3], 1982-1983
Box 5, Folder 7 Syllabus & Organiz., 1983
Box 5, Folder 8 Physics II2 Labs, 1983

1.2: Historical Documents, 1964-1977
These materials were grouped together by the creator and given the group title of "Historical Documents;" file unit names are the creator's unless in brackets, which signifies that the processing archivist named the file unit. Processing archivist arranged file units chronologically.

Box 5, Folder 9 Info & Documents Picked Up in Course of Astronaut-Selection Process, 1964-1971
Box 6, Folder 1-2 Notes & Refs. in Prep of Science Article on Composite Orbiting Telescope, 1966-1968 2 folders
Box 6, Folder 3 Work & Travel Records, 1968
Box 6, Folder 4 [Historical Documents, Miscellaneous], 1972-1973
Box 6, Folder 5 Purcell Letter - Original, 1974 Correspondence to Prof. E. Purcell from Gerard O'Neill re: space colonies.
Box 6, Folder 6 Press Package - Originals, 1974
Box 6, Folder 7 Living in Space, 1977

1.3: Mass Driver, 1971-1982
These materials were grouped together by the creator and given the group title of "Mass Driver;" file unit names are the creator's unless in brackets, which signifies that the processing archivist named the file unit. Processing archivist arranged file units chronologically.

Box 6, Folder 8-10 [Mass Driver Miscellaneous], 1971-1981 2 folders
Box 7, Folder 1 MDRE / Ion Drive Comparison, 1974-1979
Box 7, Folder 2 Second Mass Driver Model Including Work Notes & Correspondence with Students, 1977-1978
Box 7, Folder 3  Mass Driver Meetings 5/24/78 (PTN) & 6/20/78 (LERC), 1977-1978
Box 7, Folder 4  Working Notes Autumn 1977, 1977-1978
Box 7, Folder 5  Mass Driver Briefing, 1978
Box 7, Folder 6  Mass Driver Working Notes 1978, 1978-1979
Box 7, Folder 7  Mass Driver Design & Mission Performance, 1979-1980
Contains notes, color slide and viewgraphs.
Box 7, Folder 8  Mass Driver Calc NS & Briefing Notes, 1980-1981
Box 7, Folder 10  Mass Driver Funding, 1980-1981
Box 7, Folder 11  Essential Mass Driver Notes, 1980-1982
Box 8, Folder 1  M3 Notes, 1980-1982
Original folder label in its entirety read "M3 Notes 1982 (Mainly Development of M3 & M31.) Includes Some Earlier."
Box 8, Folder 2  To/From R. Muratore (Summer 1981), 1981
Box 8, Folder 3  Mass Driver Reprints 1981 & After, & Bibliography, 1981
Box 8, Folder 4  Mass Driver Wave Calculation, 1981
Box 8, Folder 5  M3 Mass Driver Programs into 1982, 1981-1982
Box 8, Folder 6  Mass Driver Calculations, 1981-1982
Box 8, Folder 7  To/From L. Snively, 1982
Box 8, Folder 8  Viewgraphs (Mass Driver), UNDATED
Box 8, Folder 9  [Viewgraphs], UNDATED
Identified as "Viewgraphs for Sept. 6-12 IAF Meeting in Rome."
Box 8, Folder 10  Grover Tables, UNDATED

1.4: Companies, 1945-1992
Arranged in order of the company's founding.

1.4.1: Space Studies Institute (SSI), 1973-1988
These materials appear to have been grouped together by the creator and were received in boxes labeled "Files from SSI" by the donor; file unit names are the creator's and someone unknown; when in brackets, the processing archivist named the file unit. Processing archivist arranged file units chronologically.
Box 8, Folder 11  

Box 8, Folder 12  
Space Studies Institute: Miscellaneous Correspondence to Gerard O'Neill, 1976, 1986

Box 8; 9, Folder 13; 1  
[Space Studies Institute Miscellaneous], 1977-1995
2 folders
Includes correspondence, book dedications, articles, interview transcripts, meeting minutes, patent applications.

Box 9, Folder 2  
Patent Application for Space Studies Institute, 1979

Box 9, Folder 3  
Space Studies Institute, Non-Articles, But to Keep at Home. Not Chrono, 1980-1989

Box 9, Folder 4  

Box 9, Folder 5  
Legal Account, 1981-1986

Box 9, Folder 6  

Box 9, Folder 7  
Patent, 1982-1983

Box 9, Folder 8  

Box 9, Folder 9  

Box 9, Folder 10  
[Memos & Correspondence re: Publicity?], 1984-1991
Gerard O'Neill's label for this folder fell off. Includes correspondence, notes, magazine articles and a "Sierra Essay."

Box 9, Folder 11  

Box 10, Folder 1  
[Space Studies Institute Confidential Newsletters], 1984-1993

Box 10, Folder 2  

Box 10, Folder 3  

Box 10, Folder 4  
Gerard O'Neill: Space Studies Institute / National Commission on Space; Gerard O'Neill Meeting President USA, 1985

Box 10, Folder 5  
Gerard O'Neill: Miscellaneous Mass Driver, New Invention Confidentiality Agreement, 1985-1986

Box 10, Folder 6  

Box 10, Folder 7  
Space Studies Institute: Useful Notes for Writing Tasks, 1985-1989

Box 10, Folder 8  
*OMNI*, 1986-1987
Advertisement placed in *OMNI* by Space Studies Institute.

Box 10, Folder 9-10  
Space Studies Institute (Not Chrono), 1986-1991
2 folders
Box 10, Folder 11  Articles, Non-Geostar, Mainly by Gerard O'Neill Re: Space Studies Institute, 1987-1991

   2 folders

Box 10, Folder 14  OMNI Ad, 1988?

Box 11, Folder 1  SA Confidential Newsletter, 1988

Box 11, Folder 2  OP EDS / LA & WA Times, 1988-1989

Box 11, Folder 3  Gerard O'Neill - Bd. Devel. [Board of Directors Development for Space Studies Institute], 1988-1992
   Correspondence, notes, Xeroxed articles.

Box 11, Folder 4  Air & Space, 1989
   Xerox copy of article on Gerard O'Neill: “Gerry's World” by Al Reinert.

Box 11, Folder 5  Gerard O'Neill - Better World [Society] & BOS, 1990
   Includes a copy of Insight March 12, 1990.

Box 11, Folder 6  GK - "Plan", 1990

Box 11, Folder 7  Sierra, 1991
   Text for an article? written by Gerard O'Neill for the Sierra Club's magazine.

Box 11, Folder 8  Where Next, Columbus? [Smithsonian Exhibition], 1991

Box 11, Folder 9  Space Studies Institute Chrono., 1991-1992

Box 11, Folder 10  GK Phone List, 1992

Box 11, Folder 11  PBS Questions, 1992

Box 11, Folder 12  [National] Forum Article, 1992
   Correspondence and “Development Replaces Dogma: Exploiting Space Resources for Humanity” by Gerard O'Neill.

Box 11, Folder 13  Memorial Service, 1992

Box 11, Folder 14  [Text for Gerard O'Neill's Obituary Notice in Physics Today], 1992

Box 11, Folder 15  [Clementine Mission Information Pack], 1992

Box 11, Folder 16  Swarthmore [Magazine Article], 1992
   “Let the Sun Shine In” by Gerard O'Neill.

Box 11, Folder 17  VSE- Space Studies Institute Partnership, 1992
Box 11, Folder 18  [Freeman] Dyson [Statement/Press Release], 1992
Box 11, Folder 19  ISU [International Space University], 1993
Also contains color slides.
Box 11, Folder 20  Japan TV, 1994
Correspondence.
Box 11, Folder 21  Japan Article, 1994
Correspondence.
Box 11, Folder 23  Ad Astra advert, 1994
Copy of magazine Ad Astra Jan/Feb.
Box 11, Folder 24  SunSat Energy Council, 1994
Box 11, Folder 25  OMNI, 1994
Box 11, Folder 26  [ "Space Studies Institute Directors' Meeting and Governing Members' Meeting Briefing Book" ], 1995
Box 11, Folder 27  VSE, 1995
Correspondence re: patent.
Box 11, Folder 28  [Space Studies Institute Newsletters], 1988
Box 11, Folder 29  [Gerard O'Neill Portrait - Color Negative], UNDATED

1.4.2: Geostar Corporation, 1945-1988

These materials were grouped together by the creator; file unit names are the creator's unless in brackets, which signifies that the processing archivist named the file unit. Processing archivist arranged file units chronologically.

Box 12, Folder 1  Physics Research, 1945-1985
9 folders
Box 13, Folder 3  RCA - EIMAC, 1975-1983
Box 13, Folder 4  Book Related, 1975-1992
Box 13, Folder 5  Duplicates for Physics Guy, 1978-1986
Articles by Gerard O'Neill, OMNI magazines.
Box 13, Folder 6  GFRB, 1979-1986
RCA correspondence, notes.
Box 14, Folder 1-2  [Geostar Business Plan], 1981-1985
2 folders
Research materials, studies, notes, correspondence, budgets.

Box 14, Folder 3  
Administration, 1981-1986

Box 14; 15, Folder 4-9; 1-8  

Box 15, Folder 9  
Safekeeping, 1981-1989

Box 15, Folder 10  
Sugarbush, 1982

Box 15, Folder 11  
Satellite Conference, 1982

Box 16, Folder 1  
Sierra Test, 1982-1983

Box 16, Folder 2  
[The Geostar Location and Information-Transfer System], 1982-1983

Box 16, Folder 3-4  
Marketing, 1982-1983
  2 folders

Box 16, Folder 5  

Box 16, Folder 6  
Venture Notes, 1982-1984

Box 16, Folder 7  
Personnel, 1982-1986

Box 17, Folder 1  
Geostar-Related, 1982-1986

Box 17, Folder 2  
Geostar Corporation, 1982-1987

Box 17, Folder 3  
[Private Placement Memorandum], 1983

Box 17, Folder 4  
RCA, 1983
  Correspondence, notes, meeting minutes, diagrams, advertisements, study outline, Geostar Satellite System Final Report.

Box 17, Folder 5  
Sierra Test - Osborne File

Box 17, Folder 6  
Geostar Corporation Preliminary Business Plan, 1983

Box 17, Folder 7  
National Telesystems Conference, 1983

Box 17, Folder 8  
Judge Advocate, 1983

Box 17, Folder 9  
Institute of Electrical & Electronics Engineers Conference, 1983

Box 18, Folder 1  
SAE Conference, 1983

Box 18, Folder 2  
Aeronautical Frequency Committee, 1983

Box 18, Folder 3  
Cable TV Summit, 1983

Box 18, Folder 4  
[Communications re: Geostar], 1983

Box 18, Folder 5  
Norland Corp., 1983-1984
  Correspondence, license agreement, system proposal, notes.
<table>
<thead>
<tr>
<th>Box 18, Folder 6</th>
<th>International Omega Association, 1983-1984</th>
</tr>
</thead>
<tbody>
<tr>
<td>Box 18, Folder 7</td>
<td>Global Civil Satellite Navig. [NAV '84 Conference], 1983-1984</td>
</tr>
<tr>
<td>Box 18, Folder 8</td>
<td>Royal Aeronautical Society, 1983-1984</td>
</tr>
<tr>
<td>Box 18, Folder 9</td>
<td>IBM, 1983-1984</td>
</tr>
<tr>
<td>Box 18, Folder 10</td>
<td>National Ocean Industries Association, 1983-1984</td>
</tr>
<tr>
<td>Box 18, Folder 11</td>
<td>Radio Technical Commission for Maritime Services, 1983-1984</td>
</tr>
<tr>
<td>Box 18, Folder 12</td>
<td>National Center for Policy Analysis &quot;The Next Frontier&quot;, 1983-1984</td>
</tr>
<tr>
<td>Box 18, Folder 13</td>
<td>International Council of Aircraft Owner and Pilot Associations, 1983-1984</td>
</tr>
<tr>
<td>Box 18, Folder 14</td>
<td>Satellite Communications Users Conference, 1983-1984</td>
</tr>
<tr>
<td>Box 18, Folder 15</td>
<td>New Mexico Department of Game &amp; Fish, 1983-1984</td>
</tr>
<tr>
<td>Box 19, Folder 1</td>
<td>[Geostar Testing], 1983-1986</td>
</tr>
<tr>
<td></td>
<td>Includes correspondence, notes, data, reports, articles and the publication <em>Navigation</em>.</td>
</tr>
<tr>
<td>Box 19, Folder 2</td>
<td>FCC &amp; Related, 1983-1986</td>
</tr>
<tr>
<td>Box 19, Folder 3</td>
<td>Business Plan, Budgets, CHG MTGS, 1983-1987</td>
</tr>
<tr>
<td>Box 19, Folder 4</td>
<td>RCA Astro, 1983-1987</td>
</tr>
<tr>
<td>Box 19, Folder 5</td>
<td>Gerard O'Neill Articles &amp; Memos RE: Geostar, 1983-1989</td>
</tr>
<tr>
<td></td>
<td>12 folders</td>
</tr>
<tr>
<td></td>
<td>Memos, meeting notes, correspondence.</td>
</tr>
<tr>
<td>Box 21, Folder 1</td>
<td>Business Week, 1984</td>
</tr>
<tr>
<td>Box 21, Folder 2</td>
<td>Yankee Group Telecommunications, 1984</td>
</tr>
<tr>
<td>Box 21, Folder 3</td>
<td>Magazine Publishers, 1984</td>
</tr>
<tr>
<td>Box 21, Folder 4</td>
<td>Institute of Navigation, 1984</td>
</tr>
<tr>
<td>Box 21, Folder 5</td>
<td>Space Technology Conference &amp; Expo, 1984</td>
</tr>
<tr>
<td>Box 21, Folder 6</td>
<td>Satellite Navigation System Hearing, 1984</td>
</tr>
<tr>
<td>Box 21, Folder 7</td>
<td>American Trucking Assoc/ATA/MSC Nat'l Workshop, 1984</td>
</tr>
<tr>
<td>Box 21, Folder 8</td>
<td>Financing Business in Space, 1984</td>
</tr>
<tr>
<td>Box 21, Folder 9</td>
<td>ACRI, 1984</td>
</tr>
<tr>
<td>Box 21, Folder 10</td>
<td>American Public Transit Association, 1984</td>
</tr>
<tr>
<td>Box 21, Folder 11</td>
<td>Financing Options for Space Ventures, 1984</td>
</tr>
</tbody>
</table>
Box 21, Folder 12  Technical Specs, 1984
Box 21, Folder 13  Geostar Corporation Business Plan, 1984
Box 21, Folder 14  Geostar Concept Study, 1984
Box 21; 22, Folder 15
1  Geostar Corporation Memorandum, 1984
Box 22, Folder 2  Prime Host Deals, 1984-1985
Box 22, Folder 3  Americom (Business), 1984-1985
Box 22, Folder 4-5  Transmit / Receive, 1984-1985
2 folders
Box 22, Folder 6  XTRA & Backup, 1984-1985
Box 22, Folder 7  Briefings, 1984-1985
Box 22, Folder 8  Chronological Faxes, 1984-1986
Box 23, Folder 1  SST Link One, 1985
Box 23, Folder 2  Voting Shares, 1985
Box 23, Folder 3  Geostar Exec. Comm. LOS, 1985
Box 23, Folder 4  Correspondence, 1985
Box 23, Folder 5  [1985 Appointment Book / Planner], 1985
Box 23, Folder 6  [Geostar - Other], 1985
Box 23, Folder 7  For Briefings, 1985-1986
Includes color 8X10 of Gerard O'Neill and an unknown person.
Box 23, Folder 8  Geostar Corporation Confidential Private Placement Memorandums, 1985-1986
Box 23, Folder 9  TECH - Hygain (PRP), 1985-1986
Box 23, Folder 10  GSTAR II Failure Review Notes - Names, Members, and Mtg. Sch., 1986
Box 23, Folder 11-12  [RCA Correspondence RE: Geostar Receiver Failure], 1986
Box 24, Folder 1  R/O Review Board, 1986
Box 24, Folder 2-3  Geostar - Chronological, September-December 1986, 1986
2 folders
Box 24, Folder 4-6  Geostar Failure Report, 1986
3 folders
Box 24, Folder 7  [Final Report of the Independent Geostar Receiver Failure Review Board], 1987
Box 25, Folder 1  [Luis Alvarez Tribute], 1988
Box 25, Folder 2  Comsat Satellite Service Calculator, UNDATED
Box 25, Folder 3  [Geostar Prime Executive Summary], UNDATED
Box 25, Folder 4  Notes on the Founding of Geostar, UNDATED
Box 25, Folder 5  [Report of the Independent Geostar Receiver Failure Review Board], UNDATED

These materials were grouped together by the creator; file unit names are the creator's unless in brackets, which signifies that the processing archivist named the file unit.

Box 25, Folder 6-7  [O'Neill Communications, Inc.], 1986-1991
2 folders

These materials were grouped together by the creator; file unit names are the creator's, and another unknown person, unless in brackets, which signifies that the processing archivist named the file unit. Processing archivist arranged file units chronologically.

Box 25, Folder 9  Articles, 1972, 1991-1992
   Newsletters, clippings and magazine articles Re: Satellites/GPS, SLAC (Stanford Linear Accelerator Center), high-speed trains. Also includes a company summary of Space Rail Corporation.
   Includes "Trans-Planetary Subway Systems - A Burgeoning Capability" by Robert Salter.
Box 26, Folder 1  INTEREST GROUPS, 1983, 1990-1992
Box 26, Folder 2-3  Vendor Catalogs/Information, 1985-1991
   2 folders
Box 26, Folder 4  From Behind Desk, 1986-1992
Box 26, Folder 5  Civil Engineering / Tunneling, 1988-1991
Box 26, Folder 6  Vendors List, 1989-1992
Box 26, Folder 7  PHONE LISTS, ADDRESS LISTS - Dr. O'Neill's Phone & Address List, 1989, 1991
Box 26, Folder 8  Track Charts, 1989-1991
Box 27, Folder 1  Market Studies, 1990
Box 27, Folder 2  FRA/DOT, 1990
Box 27, Folder 3-4  MAGLEV, 1990-1991
   2 folders
   Contains photos.
Box 27, Folder 5  BUSINESS PLANS - VSE Phase I, 1990-1991
Box 27, Folder 6  Floater/ VSE Drawings, 1990-1991
Box 27, Folder 7-8  VSE Patent Effort Documents, 1990-1991
   2 folders
Box 27, Folder 9  [VSE], 1990-1991
Box 27, Folder 10  Individuals, 1990-1991
Box 28, Folder 1  ACCOUNTS - VSE Financial Statements, 1990-1992
   Includes business and financial data, development and implementation plan, expenses by month.
   Includes some correspondence and notes.
Box 28, Folder 3  US Congress, 1991
   Correspondence, notes and articles.
Box 28, Folder 4  Current Investors/Contracts, 1991
   Correspondence.
Box 28, Folder 5  Private Company, 1991
   Correspondence/notes on/with: CSX, Chicago-Northeaster, Grumman, Bechtel.
Box 28, Folder 7  PUBLICATIONS, 1991
Box 28, Folder 8  VSE Budget, 1991
Box 28, Folder 9  New York State. Technical & Economic Maglev Evaluation, 1991
   Final Report prepared for the New York State Energy Research and Development Authority.
Box 28, Folder 10  Attendee Lists, 1991
   For International Symposium on Magnetic Suspension Technology & the Maglev Technology Assessment Symposium.
Box 28, Folder 11  PROGRESS REPORTS - Reports to Investors, 1991
Box 28, Folder 12  Non-Disclosures, 1991
Box 28, Folder 13  One DOF Model, 1991
Box 28, Folder 14  Quotes, 1991
Box 28, Folder 15  R & D - Originals, 1991
Box 28, Folder 16  Calculations, 1991
Box 29, Folder 1  1/7" Scale VSE Model, 1991
Box 29, Folder 2  Systems, 1991
Box 29, Folder 3  Route Analysis Program, 1991
Box 29, Folder 5  Employee Records, 1991-1992
Correspondence and time sheets.
Box 29, Folder 6  [International Symposium on Magnetic Suspension Technology Parts 1 & 2], 1992
Box 29, Folder 7  Rail, 1992
Box 29, Folder 8  VSE Information Packet, 1992
Also includes materials re: patent.
Box 29, Folder 9  VSE Taxes, 1992
Liquidation correspondence and notes.
Box 29, Folder 10  Potential Contacts for VSE, 1992
Box 29; 30, Folder 11; 1
VSE Viewgraphs, 1992
2 folders
Transparencies re: Magnetic Flight.
Box 30, Folder 2  Bios/Resumes for VSE, UNDATED
Gerard O'Neil bio sketch.

1.5: Monographs, 1976-1983
Arranged in order of publication.
The High Frontier was published in 1977. 2081: A Hopeful View of the Human Future was published in 1981. The Technology Edge was published in 1983.

1.5.1: The High Frontier, 1976-1981

Includes materials for both the book and the screenplay of The High Frontier. Also includes some legal papers regarding use of the name The High Frontier.

These materials were grouped together by the creator; file unit names are the creator's unless in brackets, which signifies that the processing archivist named the file unit. Processing archivist arranged file units chronologically. Also see Series V for additional materials on The High Frontier.

**Box 30, Folder 3**  [The High Frontier Drafts - Front & Back Materials, Graphics Information, Notes], 1976

**Box 30, Folder 4-6**  [The High Frontier Draft - Gerard O'Neill Reference Copy], 1976

**Box 30; 31, Folder 7-8; 1**  [The High Frontier Proof Copies], 1977?

**Box 31, Folder 2**  "The Colonization of Space" A Proposal for a Novel by Philip Friedman's], 1978?

**Box 31, Folder 3-4**  Obsolete First Draft Matter S&S Book, 1978-1979

**Box 31, Folder 5**  Older Material, Phil Friedman/Film [The High Frontier Screenplay - Draft], 1979

**Box 31, Folder 6**  [The High Frontier Screenplay - Jan. 1979 Draft & Notes], 1979

**Box 31, Folder 7**  [The High Frontier Screenplay - Card Outline], 1979

**Box 31, Folder 8**  [The High Frontier Screenplay - July 1979 Draft, Comments & Correspondence], 1979

**Box 31, Folder 9**  [The High Frontier Screenplay - April-August 1979 Draft Sections & Correspondence], 1979

Includes pitch letters, for interviews.

**Box 32, Folder 1-2**  [The High Frontier Screenplay - August 1979 Draft], 1979

**Box 32, Folder 3**  Philip Friedman's 9/26/79 Script [The High Frontier Screenplay - Draft], 1979

**Box 32, Folder 4**  Friedman/Film Selected Material [re: The High Frontier Screenplay], 1979-1980

**Box 32, Folder 5**  Graphics For Film Project [re: The High Frontier Screenplay], 1979-1980

Correspondence, notes, graphics, sketches.
3 folders
Re: concerns about the use of Gerard O'Neill's Service Mark “The High Frontier” by General Daniel Graham and his associates. Particularly that people would confuse the Space Studies Institute's peaceful aims with the (antithetical) aims of the General. Correspondence, articles, copies of *Newsweek* and *Time*.

Box 33, Folder 2-3  
[The High Frontier Screenplay - Drafts & Correspondence], 1980  
2 folders

Box 33, Folder 4  
[The High Frontier Screenplay - Draft & Notes], 1980

Box 33, Folder 5-6  
[The High Frontier Screenplay - Oct. 1980 Drafts], 1980  
2 folders

Box 34, Folder 1-2  
[The High Frontier Screenplay - Miscellaneous], 1980-1981  
2 folders
Correspondence, storyboard slides, *American Cinematographer* magazine

Box 34, Folder 3  
[The High Frontier Screenplay - Jan-Feb 1981 Drafts], 1981

Box 34, Folder 4  
[The High Frontier Screenplay - Early? Draft & Notes], UNDATED

Box 34; 35, Folder 5-6; 1-2  
[The High Frontier Screenplay - Undated Drafts], UNDATED  
4 folders

Box 35, Folder 3-4  
[The High Frontier Screenplay - Bound Draft], UNDATED  
2 folders


These materials were grouped together by the creator in chapter order; file unit names are the creator's unless in brackets, which signifies that the processing archivist named the file unit. Also see Series V for additional materials on 2081.

Box 35; 36; 37, Folder 5; 1-5; 1  
[2081 Drafts], 1977-1980  
7 folders

Box 37, Folder 2-3  
[2081] Copy of 1979 Draft, 1979  
2 folders

Box 37, Folder 4  

Box 37, Folder 5  
[2081] REFERENCE MATTER AND NOTES PT. I - The Prophets, 1976-1979

Box 37, Folder 6  
[2081] REFERENCE MATTER AND NOTES PT. I - The Prophets 2, 1957-1978
Box 37, Folder 7  [2081] REFERENCE MATTER AND NOTES PT. I - The Prophets 3, 1974-1978

Box 37, Folder 8  [2081] REFERENCE MATTER AND NOTES PT. II - Space Colonies, 1966-1979


Box 38, Folder 1  [2081] REFERENCE MATTER AND NOTES PT. II - Computers and Automation, 1977-1979

Box 38, Folder 2  [2081] REFERENCE MATTER AND NOTES - The Visitors & Stellar Contact, 1978-1979

Box 38, Folder 3  [2081] REFERENCE MATTER AND NOTES - Through the Earth, 1972-1980

Box 38, Folder 4-5  [2081] REFERENCE MATTER AND NOTES PT. IV - Wild Cards & Epilogue, 1977-1980

2 folders

Box 38, Folder 6  [2081] REFERENCE MATTER AND NOTES - Honolulu, PA & Robotics/Calculators, 1958-1980

Box 38, Folder 7  [2081] REFERENCE MATTER AND NOTES - Homes and Castles & 3 R's & Secret Whispers & Rain or Snow & We Service & Food and Drink & Plastic Money, 1978-1979

Box 38, Folder 8  [2081] REFERENCE MATTER AND NOTES - Highways of the Sky & Racing the Sun, 1979-1980

Box 38, Folder 9  [2081] REFERENCE MATTER AND NOTES - Sin/City/Lotus, 1979-1980


Box 38, Folder 11  [2081] REFERENCE MATTER AND NOTES - Rise & Fall of Nations (Richer-Poorer), 1978-1979


Box 38, Folder 13  [2081 Draft] Part IV - Wild Cards / Individual Chapters, 1980

Box 38, 39, Folder 14; 1  [2081 Draft] Part III - Narrative & Individual Sections (The Driven), 1980

Box 39, Folder 2  [2081 Draft] Part II - Drivers of Change (CASEC), 1980

Box 39, Folder 3  [2081 Draft Table of Contents], 1979


Box 39, Folder 5  [2081] One-Page Synopsis, 1978-1979
1.5.3: The Technology Edge, 1981-1983

These materials were grouped together by the creator; file unit names are the creator's unless in brackets, which signifies that the processing archivist named the file unit. Processing archivist arranged file units in chapter order with general materials at the end and in chronological order. Also see Series V for additional materials on The Technology Edge.

Box 39; 40, Folder 11-12; 1-5 Technology Edge Part One - Japan, 1981-1983
7 folders
Research materials, notes, drafts, correspondence, photos. Final chapter title: "Japan Challenges the World."

Box 40, Folder 6 Technology Edge Part II's Intro, 1983

Box 40; 41, Folder 7; 1-8 Technology Edge ME Section [Microengineering. Part Two, Chapter Two], 1980-1983
9 folders
Research materials, notes, drafts, correspondence, photos and negatives.

Box 42, Folder 1-3 Technology Edge RR Section [Robotic Reproduction. Part Two, Chapter Three], 1974-1983
3 folders
Research materials, notes, drafts, correspondence. Final chapter title: "Robots - The New Breed."

Box 42; 43, Folder 4-5; 1-2 Technology Edge Genetic Hardware [Part Two, Chapter Four], 1979-1983
4 folders
Research materials, notes, drafts, correspondence.

Box 43; 44, Folder 3-5; 1-2 Technology Edge MF Section [Magnetic Flight. Part Two, Chapter Five], 1975-1983
5 folders
Research materials, notes, drafts, correspondence, photos and negatives.

Box 44, Folder 3-6 Technology Edge FS Section [The 400 MPH Family Sedan. Part Two, Chapter Six], 1981-1983
4 folders
Research materials, notes, drafts, correspondence, photos. Final Chapter titled: "The 340 MPH Limousine."

Box 45, Folder 1  
[Technology Edge El Dorado in Orbit. Part Two, Chapter Seven], UNDATED  
Draft chapter.

Box 45, Folder 2-4  
Technology Edge Venture Capitol Section, Part Three, 1978-1983  
3 folders  
Research materials, notes, drafts, correspondence.

Box 45; 46, Folder 5-6; 1-6  
Technology Edge SP - Space Section, 1968-1983  
8 folders  
Research materials, notes, drafts, photos. Includes many photos of Gerard O'Neill at Rockwell International.

Box 47, Folder 1-4  
Technology Edge IBM Section, 1979-1983  
4 folders  
Research materials, notes, drafts, correspondence.

Box 47, Folder 5  
[Technology Edge] Part Three. IBM & Other Non-Venture Section, 1982  
Research materials, notes, correspondence.

Box 47, Folder 6  
Draft of chapter with final name of "World-Class Players" & correspondence.

Box 48, Folder 1-2  
All Literary Contracts & Proposals, 1977-1991  
2 folders

Box 48, Folder 3  
[Technology Edge] Interview Names/Addresses & General Notes, 1981-1982

Box 48, Folder 4  
[Technology Edge] Book Work, 1983  
Notes and drafts.

Box 48, Folder 5-6  
Technology Edge Unbound Page Proof, UNDATED  
2 folders  
With some notes and a press release.

Box 49, Folder 1-3  
["Opportunities" aka Technology Edge Draft], UNDATED  
3 folders

Box 49, Folder 4  
Advance Uncorrected Proofs - "Opportunities" [aka Technology Edge], UNDATED

1.6: National Commission on Space, 1984-1986
These materials were grouped together by the creator; file unit names are the creator's unless in brackets, which signifies that the processing archivist named the file unit. Processing archivist arranged file units chronologically.

Box 49, Folder 5  
Donahue: Backup Materials, 1984-1985  
Task group summaries.

Box 49; 50, Folder 6-7;  
1  
[National Commission On Space Miscellaneous Materials], 1984-1986  
3 folders  
Correspondence, member list, meeting schedules, magazine articles, presentations (text), notes.

Box 50, Folder 2-5  
National Commission On Space - Unmanned Space Program August 21-22, 1985 [Binder], 1985  
4 folders  
A 3-ring binder made by JPL of agenda, goals, notes and presentations. An orientation/presentation-companion packet?

Box 50, Folder 6  
Gerard O'Neill President's Commission On Space - FBI Investigation, 1985

Box 50, Folder 7  
Space Station Presentation to the President's National Commission On Space May 15, 1985, 1985  
3 ring binder put together by NASA, presented by Philip E. Culbertson, Associate Administrator, Office of Space Station.

Box 51, Folder 1  
[The Ariane 4 Launch Vehicle. Presentation, June 1985], 1985  
Presentation to GTE-Spacenet, Les Mureaux by A. Van Gaver, CNES, Ariane 4 Program Manager.

Box 51, Folder 2-3  
National Commission On Space, 1985-1986  
2 folders

Box 51, Folder 4  

1.7: Miscellaneous, 1940s-1993

Materials that appear to not have been grouped together with other materials by the creator; some file unit names are the creator's, some cannot possibly be. If the title is in brackets, the processing archivist named the file unit. Processing archivist arranged file units chronologically.

Box 51, Folder 5  
[Portraits of Gerard O'Neill], 1940s

Box 51, Folder 6  
[Miscellaneous], 1944, 1948  
Contains photos.

Box 51, Folder 7  
Gerard O'Neill Photographs, 1957-1980s?
Box 51, Folder 8  [Report on Trip to the USSR & Studies of Colliding Electron-Electron, Positron-Electron and Proton-Proton Beams at the Institute for Nuclear Physics, the Siberian Branch of the USSR Academy of Sciences, 1963

Box 51, Folder 9  [Miscellaneous Correspondence], 1963-1983

Box 52, Folder 1-2  [Ephemeris from Trip to Russia], 1965
2 folders
Includes newspaper articles and correspondence.

Box 52, Folder 3-4  C.I.S. [Colonies In Space?] Article, 1970-1974
2 folders

Box 52, Folder 5  Important History - Gerard O'Neill Handwritten Versions of First Space Colony Articles, 1973

Box 52, Folder 6  [1974-78 Lectures, Appearances, Royalties, Advances from Publishers, Host Trips Taken in Own Aircraft], 1974-1978

Box 52, Folder 7  [The Low (Profile) Road to Space Manufacturing, an article by Gerard O'Neill], 1978

Box 52, Folder 8  Lectures: Collected Reprints, 1978-1981
Reprints of articles.

Box 53, Folder 1-2  Lecture: Notes, 1979-1988
2 folders

Box 53, Folder 3  [Elementary Particle Physics Textbook by David Cheng & Gerard O'Neill PROOF], 1979

Contains "Space Colonization. An Annotated Bibliography" by Michael Marotta.

Box 53, Folder 5  [New Routes to Manufacturing in Space, an article by Gerard O'Neill], 1980

Box 53, Folder 6  Princeton University, 1982-1984

Box 53, Folder 7  Interviews, 1983-1986

Box 54, Folder 1  Miscellaneous, 1983-1987

Box 54, Folder 2  Princeton University - Retirement Letters, 1984-1985

Box 54, Folder 3-6  Speaking Engagements, 1984-1987
4 folders

Box 54; 55, Folder 7; 1  Travel, 1984-1986
2 folders

Box 55, Folder 2  1986-1987

Box 55, Folder 3  [Planners], 1986-1992

Box 55, Folder 4  [Articles, Interviews, Reviews], 1987-1989
<table>
<thead>
<tr>
<th>Box 55, Folder 5</th>
<th>Article by Gerard O'Neill, 1988</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>“Power From Space?”</td>
</tr>
<tr>
<td>Box 55, Folder 7</td>
<td>Article by Gerard O'Neill, 1989</td>
</tr>
<tr>
<td></td>
<td>“Solar Power By Satellite Would Solve Ozone Crises”</td>
</tr>
<tr>
<td>Box 55, Folder 8</td>
<td>[White House Correspondence], 1989-1992</td>
</tr>
<tr>
<td>Box 55, Folder 10</td>
<td>Lecture: Graphics, UNDATED</td>
</tr>
</tbody>
</table>

Box 55-56

This series consists of reports by Gerard O'Neill and magazines which contain articles written by Gerard O'Neill.

Arranged in chronological order.

Box 55, Folder 11 [Princeton Alumni Weekly Magazines], 1958-1989
Box 55, Folder 12 [University. A Princeton Magazine], 1963
Box 55, Folder 13 [“Particle Storage Rings” by Gerard O’Neill reprinted by Scientific American, 1966
Box 55, Folder 14 [OMNI Magazines], 1984, 1986, 1989
Box 56, Folder 1 [Discover Magazine], 1985
Box 56, Folder 2 [National Journal Magazine], 1986
Box 56, Folder 3 [Air & Space Magazine], 1989
Box 56, Folder 4 [Report of the Advisory Committee on the Future of the U.S. Space Program Magazine], 1990
Box 56, Folder 5 [Ad Astra Magazine], 1991
Box 56, Folder 6 [National Forum Journal], 1991
Box 56, Folder 7 [Triology Magazine], 1992
Series 3: Personal Papers, circa 1949-1990

Box 56-58
These materials were grouped together by the creator; file unit names are the creator's unless in brackets, which signifies that the processing archivist named the file unit. Processing archivist arranged file units chronologically.

Box 56, Folder 8  Gadgetry, circa 1949
Box 56, Folder 9  To Be Done Around the House - Plans of Construction Projects, 1962-1980
3 folders
Contains photos.
Box 57, Folder 3  [Trips/Vacations], 1969, 1977-1981
Box 57, Folder 4  Aircraft, 1977-1981
Box 57, Folder 5  Time-Lapse Camera System, 1979
Box 57, Folder 6  [Ryan Stormscope Sales Packet & Gerard O'Neill Notes], 1979-1981
Box 57, Folder 7  [Model TSIO-520BE Continental Aircraft Engine Maintenance and Operator's Manual], 1983
Box 57, Folder 8  Malibu, 1983-1986
Box 57, Folder 9  Flight Planning, 1984-1990
Box 58, Folder 10; 1 Service Bulletins, 1985-1989
2 folders
Box 58, Folder 2  GTON Flight Data Sheets, 1988-1989
Box 58, Folder 3  GTON, Inc., 1989-1990
Box 58, Folder 4  Loran Way Points, 1990
Box 58, Folder 5  Malibu Training Manual, UNDATED
Series 4: Images, 1960s-1993

6 boxes; Box 59-64

Contains lantern slides, contact sheets, 35mm negatives & slides.

Some lantern slides were labeled and grouped together; that original order was maintained when re-housing.

Box 59

[Prints, 35mm Slides, Negatives & Contact Sheets], circa 1975-1993
35mm BxW negatives and contact sheet are images from Gerard O'Neill's interviews for Technology Edge. 3 35 mm color negatives of vacation? 1 8x10 of Gerard O'Neill and Dan Quayle. 1 4x6 album of Gerard O'Neill's appearance on the television program Living and Working in Space April 15, 1993. Numerous 35mm slides are miscellaneous.

Box 60-64

[Lantern Slides], 1960s-1970s?
5 boxes
Boxes 60-62 are miscellaneous images, the majority of which appear to possibly be diagrams or figures for a textbook.

Boxes 63-64 contain images grouped and labeled by Gerard O'Neill: "May '60 CSR," "Spark-Chamber Pictures TC-II May '61," "Site Views," "CBX Slides (1st Box)," "CBX 2nd Box Winterbottom," "O'Neill E-12" and "Synchrotron."
Series 5: Odd & Oversize

9 boxes ; Box 65-73

Box 65-66  [Physics Study Notecards], UNDATED
           2 boxes


Box 68-69  [*Technology Edge* Drafts], 1974-1983
           2 boxes
           Box 69 also contains a "Fellow of the Rochester Museum" certificate 1983 and mounted cover of *Physics Today* Sept 1974 ("Colonies in Space" cover.)

Box 70  [*The High Frontier* Copy Proof], 1976

Box 71  [2081 Proof & Publishing Agreement], 1979-1981

Box 72  [Miscellaneous], 1981-1983

Box 73  [Rolodex], UNDATED