



Smithsonian

National Air and Space Museum

Robert C. Truax Collection

Tyler Love

2016



National Air and Space Museum Archives
14390 Air & Space Museum Parkway
Chantilly, VA 20151
NASMRefDesk@si.edu
<https://airandspace.si.edu/archives>

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Collection Overview

Repository:	National Air and Space Museum Archives
Title:	Robert C. Truax Collection
Date:	1929-2005 (bulk 1980-2000)
Identifier:	NASM.2016.0008
Creator:	Truax, Robert Collins, 1917-2010
Extent:	11.99 Cubic feet 12.95 Linear feet (21 Legal Size Boxes, 1 Slim Legal Size, 3 Shoe Boxes, 1 Flat Box)
Language:	English .
Summary:	Robert Truax was one of the great originals of American rocketry and a major proponent and inventor of ultra-low-cost rocket engine and vehicle concepts.

Administrative Information

Acquisition Information

Truax Estate, gift, 2016

Processing Information

The processing archivist kept original file unit titles when possible. Titles written by the archivist appear in brackets.

Preferred Citation

Robert C. Truax Collection, Acc. 2016-0008, National Air and Space Museum, Smithsonian Institution.

Restrictions

No restrictions on access.

Conditions Governing Use

[Permissions Requests](#)

Biographical / Historical

Robert Truax (1917-2010) was one of the great originals of American rocketry and a major proponent and inventor of ultra-low-cost rocket engine and vehicle concepts. A longtime member of the American Rocket Society (serving as its president in 1957,) He received the Robert H. Goddard award for outstanding work in liquid propellant rockets as well as the Legion of Merit citation for his conceptual work on making the "Polaris" guided-missile submarine a primary naval weapon. Truax was also inducted into the Air Force Space and Missile Pioneers Hall of Fame in 2003.

Inspired by Robert Goddard, Truax began building rockets when he was a teenager in California. From 1936 to 1939, while enrolled at the United States Naval Academy, he tested liquid-fueled rocket motors. During the late 1940s, he organized the US Naval Missile Test Center's propulsion laboratory at Point Mugu, California, and headed rocket development within the Navy's Bureau of Aeronautics where he advanced the concept of a staged combustion system upon which the Space Shuttle's main engines would eventually rely. In 1946, Truax led a team that interrogated the rocket engineer for Nazi Germany, Wernher von Braun.

By 1955, however, his proposal for a submarine-launched ballistic missile had failed to win Navy approval and he joined the Air Force's newly established Western Development Division (WDD) From 1955 to 1958, Captain Truax headed the Thor intermediate-range ballistic missile (IRBM) development program. Truax studied the sea launching of rockets, such as the Sea Bee and Sea Horse projects. In 1959 he retired as a Captain, and headed the Aerojet-General Advanced Development Division and Aerojet's Sea Dragon project in the Advanced Development Division until leaving in 1967. In 1966 Robert Truax founded Truax Engineering Inc. (TEI,) which studied sea launch concepts similar to the earlier Sea Dragon—the Excalibur, the SEALAR (Sea Launched Rocket,) and the Excalibur S. Here his low-cost booster program plan was elaborated and further studied, but he was again unable to interest NASA or the USAF in the concept of cheap access to space.

In the 70's and early 80's, Truax, heretofore prominent in scientific communities, emerged in popular culture. Literally building rockets from his own backyard in Saratoga, Truax built both of Evel Knievel's "Skycycles" for his 1974 attempt to jump the Snake River Canyon. He later competed in the original X-prize competition to send a private astronaut into suborbital flight.

Robert Truax, died on September 17 aged 93, as a key figure in the rocket research that took America into the space age, while also being an inspiration to the do-it-yourself, back-yard amateur.

Scope and Contents

This collection consists of material relating to the career of Robert Collins Truax including correspondence, photographic material, technical drawings, technical manuals and reports, presentation and conference materials, papers by Truax, news clippings, published materials and business records for Truax Engineering, Inc.

Projects and programs referenced in this collection include the Knievel Rocket Car (Truax X-2 Sky-Cycle); X-3 Volksrocket; amphibious launchers, including the "Sea Dragon," "Sea Horse," and SEALAR (Sea Launched Rocket); the Space Shuttle program; the Gemini and Apollo programs; Rocketdyne LR89 Liquid-Fuel Motors; Rand Project; the Corona Reconnaissance Satellite; and Project Private Enterprise.

The researcher should note that the collection also contains audio-visual material. These items are not included in the finding aid but the NASM audio-visual archivist can assist you regarding access.

Arrangement

This collection was arranged into series by the processing archivist. There was no original order when the collection was received.

Series 1: Personal & Business Papers

Series 2: Papers Authored by R.C. Truax

Series 3: Drawings

Series 4: Images

4:1 - Slides

4:2 - Photos, Negatives & Floppy Discs

Acronyms

Numerous acronyms were used by the creator when labeling his file units. Some will be obvious to the researcher but the archivist has identified some acronyms that might be more unclear. Not all acronyms were able to be identified.

AFRL - Air Force Research Lab

ATD - Advanced Technology Development

BAA - possibly Broad Agency Announcement

BMDO - Ballistic Missile Defense Organization

CDRL - Contract Data Requirements List?

CPAI - Chemical Propulsion Information Agency

ITAR - International Traffic in Arms Regulations

KACST - King Abdulaziz City for Science & Technology

MSFC - Marshall Space Flight Center

PMRF - Pacific Missile Range Facility

RSLP - Rocket Systems Launch Program

SEALAR - Sea Launch & Recovery

TEI - Truax Engineering Inc.

TPIPT - Technology Planning Integrated Product Teams

Names and Subject Terms

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

Subjects:

- Astronautics
- Kneival Rocket Car (Truax X-2 Sky-Cycle)
- Manned space flight
- North American Aviation, Inc. Rocketdyne Division
- RAND
- Rocketry
- SEALAR (Sea Launched Rocket)
- Space Shuttle Program (U.S.)
- Truax X-3 Volksrocket

Container Listing

Series 1: Personal & Business Papers, 1929-2005

18 Boxes ((17 Legal Size Boxes, 1 18.75x3x15 Flat Box))

Box 1

Scope and Contents: This series contains the personal and business papers of R.C. Truax. The processing archivist combined these papers into one series because of the lack of original order and the difficulty of sometimes telling the private papers from the business papers. Many file units came with no titles or very ambiguous titles so the processing archivist made the decision that arranging the materials in chronological order might prove the most useful for the researcher.

Box 1, Folder 1	Diplomas, 1929-1992
Box 1, Folder 2	[Materials re: Patenting], 1930-1994
Box 1, Folder 3	Old Rocket Articles, 1937-1979
Box 1, Folder 4	[Correspondence], 1937-2004
Box 1, Folder 5	The Lucky Bag 1937 [United States Naval Academy Yearbook]
Box 1, Folder 6	The Lucky Bag 1938 [United States Naval Academy Yearbook]
Box 1, Folder 7	[Magazines], 1938-1998
Box 2, Folder 1-4	[Newspaper/Magazine Articles], 1938-1998
Box 2, Folder 5	[Serial No. EES B-5350-Y Navy Dept., Bureau of Aeronautics - Jet Propulsion Note No. 5: Construction & Testing of a 100 lb Thrust, 20 Second Liquid-Propellant Rocket Motor Test Stand by William Schubert, Lieutenant, USNR], Sept 1 - Oct 1, 1943
Box 2, Folder 6	Fotos Importantes & CORONA Article, 1945-circa 1995
Box 2, Folder 7	Patent Documents, 1946-1964
Box 2, Folder 8	[Preliminary Design of a Long Range Rocket], 1949
Box 2, Folder 9	PIX, 1949-2002 Notes: Drawings & photos.
Box 2, Folder 10	BOB Topping Turbine Engine, 1950-1959
Box 3, Folder 1	Final Report of the Ad Hoc Space Flight Committee of the American Rocket Society, 1952

Box 3, Folder 2	[Corporal Handbook No. 1: Principles of the Corporal XSSM-G-17 System - Preliminary Edition], Jan. 1952
Box 3, Folder 3	[A Rocket Engineer's Views on Space Flight by C.C. Ross], May 28, 1953
Box 3, Folder 4	[R.C. Truax Fitness Reports], 1955-1959
Box 3, Folder 5	Task 1 – 75K Engine, Bob's Desktop File, Phase II, 1955-2000
Box 3, Folder 6	[Space Flight Program - Report by the Space Flight Technical Committee of the American Rocket Society], 1957
Box 3, Folder 7	[National Advisory Committee for Aeronautics, Technical Note 4047: A Study of the Motion & Aerodynamic Heating of Missiles Entering the Earth's Atmosphere at High Supersonic Speeds by Allen & Eggers, Oct. 1957
Box 3, Folder 8	All About R.C. Truax, 1957-circa 1992 Notes: Various condensed bio's, a reference letter, draft profile for possibly a "Who's Who" publication.
Box 3, Folder 9	National Aeronautics and Space Act of 1958 - Reference - TEI General
Box 3, Folder 10	Reports from Minneapolis – Honeywell Aeronautical Division, 1958-1998
Box 3, Folder 11	Miscellaneous Technical Publications and News Clippings, 1958-1999
Box 3, Folder 12; Box 4, Folder 1	Target Configuration No. 5, 1959-2002
Box 4, Folder 2	Gas Gas [aka Vapor-Vapor] Program, 1961
Box 4, Folder 3	Technical Manual, Operation-Maintenance, USAF Model SM-65E Missile Weapon System. Diagram Manual Pneumatic System. T.O. 21-SM65E-2D-9-1, May 1961
Box 4, Folder 4	Cost Effectiveness, 1962-1966
Box 4, Folder 5-6	["Sea Dragon" Binder], 1963
Box 5, Folder 1	[Technical Manual, Field Maintenance T.O. 2K-LR89-6: Rocket Engine, USAF Model LR89-NA-3 (Rocketdyne) 22 Sept. 1961. Changed 15 Oct. 1963]
Box 5, Folder 2	IAF Article, circa 1963 - circa 1983 Notes: Contains no actual article, just photos (including of Truax receiving the Legion of Merit,) diagrams, test summaries, "Options for a Small Launch Vehicle" possibly a TEI press release?

Box 5, Folder 3	[Aetron - Proposal Information for Big Boy Test Facility. Dade County, FL], Jan. 1964
Box 5, Folder 4	Navy BAA / ATD Proposal Oct. 1995, 1964-1998
Box 5, Folder 5	Dark Horse, 1965-1967
Box 5, Folder 6	[Correspondence re: Seahorse], 1965-1968
Box 5, Folder 7	National Space Policy, 1968-1992
Box 6, Folder 1-2	[NASA Technical Memo X-64711, Compatibility of Materials with Liquid Oxygen, Vol. 1 by C.F. Key, Astronautics Laboratory], October 1, 1972
Box 6, Folder 3	Ken Carter Jump, 1976
Box 6, Folder 4	Newspaper Reports of Truax Rocket Projects, mostly if not all in Saratoga, 1977-1989
Box 6, Folder 5	[TEI - A Low Cost Manned Space Project], circa 1980
Box 6, Folder 6	Media Materials, 1980-?
Box 6, Folder 7	[Product Information], 1981
Box 6, Folder 8	Draft Input Texts WJSA [W.J. Schafer Associates] Report, 1982-1997
Box 6, Folder 9	[Technical Papers by Various Authors (not including Truax)], 1982-1992
Box 6, Folder 10	Joint Venture Agreement between Truax Engineering, Inc. and Fell Peters, 1983
Box 6, Folder 11	Articles that Mention TEI, 1983
Box 6, Folder 12	Technical Manual: Rocket Engine, USAF Model LR89-NA-5 (Rocketdyne), 17 March, 1983
Box 7, Folder 1	CPIA Publication 398: Propulsion Cost Estimation, 1984 JPM Specialist Session, 1984-1988
Box 7, Folder 2	X-3, 1984-1988
Box 7, Folder 3	[Miscellaneous, Found Loose in Collection], 1985-1996 Notes: Includes a poem, xerox'd images, notes, sections of presentations.
Box 7, Folder 4	[Space] Shuttle Data, 1986, 1996-1997
Box 7, Folder 5	Mars II Data, 1987

Box 7, Folder 6	New SWEER Article & Other Newspaper Articles, 1987-1995
Box 7, Folder 7	Official Replies
Box 7, Folder 8	Miscellaneous Papers – Balzer, Greg, 1988-1989 Notes: Includes mostly diagrams and the manual "Ship Equipment Configuration Accounting System" by Dept. of Navy, Sea Systems Command.
Box 7, Folder 9	Space Based Laser - Reference - TEI General, 1988, 1996
Box 7, Folder 10	Paper on RAND [Research AND Development] and Comments, 1988-1997 Notes: Includes "H.M.S. Moon Rocket" by Tony Reichhardt & "RAND's Role in the Evolution of Balloon and Satellite Observation Systems and Related U.S. Space Technology" by Davies and Harris.
Box 7, Folder 11	By-Laws of TEI. Admin./Corp. Matters - TEI General, 1989
Box 8, Folder 1	SEALAR Program Reports, 1989, 1991
Box 8, Folder 2	[TEI Miscellaneous Memos & Correspondence], 1989-2000
Box 8, Folder 3	Recovery Tech. Info, 1990
Box 8, Folder 4	[Sea Dragon in the Manned Mars Mission Materials], 1990
Box 8, Folder 5	"A Historical Look at United States Launch Vehicles, 1967-Present", 1990 Notes: A binder of collected data on various rockets such as Thor, Titan, Atlas, Delta, etc.
Box 8, Folder 6	[Proposal for Launch Segment Services for the Iridium Satellite System by TEI], Dec. 10, 1990
Box 8, Folder 7	[Binder of Miscellaneous Notes], circa 1990 - circa 1998
Box 8, Folder 8	ITAR, 1990, 1991, 2001
Box 8, Folder 9	[Materials re: SEALAR], 1991
Box 8, Folder 10	Marketing, 1991
Box 8, Folder 11	Development Idea & Concepts, 1991
Box 8, Folder 12	X-3 Data, 1991
Box 9, Folder 1	[Truax Engineering Inc. Business Plan, January 18, 1991 - Mock-Up]
Box 9, Folder 2	Pacific Missile Range Facility, Range User's Handbook, Sept. 1991

Box 9, Folder 3	[SEALAR Program Final Report. Conducted for U.S. Naval Research Lab, Dec. 15, 1991]
Box 9, Folder 4	Misc. Misc., 1991-1993 Notes: Business/financial related correspondence.
Box 9, Folder 5	New Coml. Bus. [Commercial Business?], 1991-1995
Box 9, Folder 6	Copias de Papeles [Copies of Papers] del Bob, 1991, 1995
Box 9, Folder 7	SEALAR PDR Jan. 23, 1991, 1991, 1999 Notes: Possibly this is supposed to say "PRD" for Program Requirements Document?
Box 9, Folder 8	[Truax Engineering Inc. Info/History], circa 1991-1999
Box 9, Folder 9	Miscellaneous Technical, 1991-2000
Box 9, Folder 10	SEALAR Miscellaneous Admin. - TEI General, 1991, 2001
Box 9, Folder 11	[Truax Engineering Inc. Business Miscellaneous], 1991-2004 Notes: Mostly correspondence, with notes and prepared statements?
Box 10, Folder 1	Malewicki, Doug / Robosaurus, 1992, 1998
Box 10, Folder 2	Loans, 1992?, 2000
Box 10, Folder 3	All About TEI, 1993 Notes: Copies of a short piece of writing called "A Word About Truax Engineering."
Box 10, Folder 4	[Draft, Research Report No. AU-ARI-93-XX: LEO [Low Earth Orbit] on the Cheap, Methods for Achieving Drastic Reductions in Space Launch Costs by John R. London III, Lt. Col, USAF], July 1993
Box 10, Folder 5	Miscellaneous Tech Data / Tech Info & Cost, 1993-2001
Box 10, Folder 6	[Truax Engineering Inc. - A New Kind of Naval Warfare / Synopsis: A Sea-Launched Global Munitions Delivery System], 1995
Box 10, Folder 7	Tarbaby/BMDO Target Carrier, 1995
Box 10, Folder 8	CIA Cold War Records: CORONA: America's First Satellite Program, Kevin C. Ruffner, Editor. 1995
Box 10, Folder 9	[An Orbital Launch Vehicle for Military Purposes by TEI], April 1995

Box 10, Folder 10	Ballistic Missile Defense Organization, Space-Based Laser for Theater Missile Defense. Unclassified Portion of the Cost Analysis Requirements Document, July 6, 1995
Box 10, Folder 11	TEI - Strategic Bombing in the 21st Century, Nov. 1995
Box 11, Folder 1	Miscellaneous Materials, CORONA, 1995-1996 Notes: Includes a technical review draft, xeroxs of newspaper and magazine articles and a paper called "Reducing the Cost of Space Launch."
Box 11, Folder 2	Theater Missile Defense Target - Reference - TEI General, 1995, 1999
Box 11, Folder 3	Fire Meyer (?), 1995, 2001
Box 11, Folder 4	Excalibur, 1996 Notes: Includes notes, calculations, correspondence, design description.
Box 11, Folder 5	Bantam Briefing, 1996
Box 11, Folder 6	Miscellaneous Correspondence. Excalibur 75K Engine - Schafer, 1996
Box 11, Folder 7	Excalibur (General Information) - Technical - TEI General, 1996
Box 11, Folder 8	NASA Prog. Bantam Lifter, 1996
Box 11, Folder 9	[X-34 Test-Bed Technology Demonstration Vehicle Proposal by TEI], May 10, 1996
Box 11, Folder 10	[Bantam System Technology Project Proposal by TEI], June 6, 1996
Box 11, Folder 11	[A Proposal to Provide a Technology Demonstration & Concurrent Design Program to Prove the Financial & Technical Feasibility of the Launch, Recovery & Relaunch of a Pressure Fed Sub Orbital Test Bed Utilizing the Corporal Rocket by TEI], Aug 1996
Box 11, Folder 12	M-1 Costs via NASA File Notes Notes: Compiled 1996.
Box 11, Folder 13	W.J. Schafer Associates Correspondence - Consultant Agreement Contract, 1996-1997
Box 12, Folder 1	W.J. Schafer Associates Correspondence - Sub-Contract N. SDIO84-92-c-0008, 1996-1997
Box 12, Folder 2	Talk, 1996-1998 Notes: Xeroxed magazine article on Sea Launch, copies of some Truax papers.

Box 12, Folder 3	Old Notes, 1999-2000, Excalibur, SBIR PH II, Early Target Configs., 1996-2000
Box 12, Folder 4	Contract History, 1996-2001
Box 12, Folder 5	Patent / Patent Rights - Reference - TEI General, 1997
Box 12, Folder 6	Viewgraphs, 1997 Notes: Apparently from various presentations.
Box 12, Folder 7	[W.J.] Schafer [Associates, Inc. re: Excalibur Contract], 1997
Box 12, Folder 8	[A Conceptual Design Study Report for the Excalibur SBL Launch System Prepared by Study Group led by Capt. R.C. Truax, USN (Ret.)], Jan. 1997
Box 12, Folder 9	[Excalibur RLV Technology Roadmap (120,000 lbs to LEO) Prepared for NASA MSFC Preliminary Design Group by TEI], July 27, 1997
Box 12, Folder 10	W.J. Schafer Associates Report. SBIR - Phase I, Aug. 8, 1997
Box 12, Folder 11	NASA - Correspondence - TEI General, 1997-1998
Box 12, Folder 12	Monthly Progress Reports, 1997-1998
Box 12, Folder 13	Bantam Lifter, TEI General - Reference, 1997-1998
Box 12, Folder 14	Test Stand Design (Mason/Socorro), 75K Engine, AFRL SBIR Contract – Phase II, 1997, 1999
Box 13, Folder 1	Injector Design (TEI) - Technical - TEI General, 1998
Box 13, Folder 2	AFRL SBIR Progress Report Phase I, 1998
Box 13, Folder 3	Kniewel Biography – [Eric] Shepard [Producer, E! TV] - Personal. R.C. Truax, 1998
Box 13, Folder 4	Phase I SBIR Correspondence - Contract N.F29601-98-c-0112, 1998
Box 13, Folder 5	Presentations, Misc. - TEI General, 1998
Box 13, Folder 6	TEI Technical Report #98-01-TB - "Tarbaby" A Cheap, Reusable Target Vehicle for Ballistic Missile Defense Jan. 1998
Box 13, Folder 7	[Hard Rocket Conference MSFC (Marshall Space Flight Center?) Jan. 13-14, 1998. Conference Materials & Presentations CD-ROM]
Box 13, Folder 8	[Advanced Rocket Propulsion Component Technology - Final Report. For: Subcontract Number SC-92-c-04-49. Prepared for Schafer Corp. Report No. TEI 98-5-12], May 12, 1998

Box 13, Folder 9	Company Capabilities Statement. Admin - TEI General [TEI Statement of Past Accomplishments & Technical Capabilities], March 1998
Box 13, Folder 10	TEI [Truax Engineering Inc.] Lattice Injector Design, Technical, TEI General, 1998-1999
Box 13, Folder 11-12	Phase II SBIR Contract w/AFRL, F29601-98-C-0212, Effective Date 01 Dec 1998, 1998, 2000
Box 14, Folder 1	[CORONA Papers], 1998-2003
Box 14, Folder 2	SOW's Future Contracts. Admin. - TEI General, 1999
Box 14, Folder 3	[Excalibur XS Target Carrier Posters Signed by R.C. Truax], 1999
Box 14, Folder 4	[TEI - AFRL/VS Briefing], Feb. 1999
Box 14, Folder 5	[TEI. 2nd Quarter 1999 Status Report - Phase II SBIR - Contract F29601-98-c-0212], July 10, 1999
Box 14, Folder 6	[TEI. 3rd Quarter 1999 Status Report - Phase II SBIR - Contract F29601-98-c-0212], Oct. 10, 1999
Box 14, Folder 7	[TEI. Task 7-Vapor Pressurization. 4th Quarter 1999 Status Report - Phase II SBIR - Contract F29601-98-c-0212], Dec. 26, 1999
Box 14, Folder 8	Burt Rutan - General. TEI General, 1999-2000
Box 14, Folder 9-10	Correspondence to TEI, AFRL SBIR – Phase II, 1999-2000
Box 14, Folder 11	Term. [Termination] & Prior, 1999-2002
Box 14, Folder 12	Tech Data TRX100, 2000
Box 14, Folder 13	75K LBF Preburner Assembly, Test Article. Final Assembly Drawing Phase II SBIR, 2000
Box 15, Folder 1	[PMRF (Pacific Missile Range Facility) Briefing on "Excalibur" Dec. 5, 2000]
Box 15, Folder 2	KACST, R.C. Truax, 2000-2001 Notes: Includes notes, operation sequences/workflows, correspondence, calculations, test plans.
Box 15, Folder 3-4	Notes, Performance Data, LO TPIPT Old Schedules, 2000-2001 Notes: Also includes correspondence, PowerPoint presentations, papers, TEI annual report, engineering monthly report, memos, drawings.
Box 15, Folder 5	[Truax Engineering Meeting Notes and Memos], 2000-2003

Box 15, Folder 6	CDRL B001, 2001
Box 15, Folder 7	Stennis E-Complex
Box 15, Folder 8	Bantam Lifter Turki Rocket, circa 2001 Notes: Includes notes, calculations, printed photos.
Box 16, Folder 1	Launch Cost as a Function of Vehicle Reliability by Turner & Wertz, Circa 2001
Box 16, Folder 2	Pre-Phase III [Progress, Status & Management Reports for Phase III SBIR 1st-3rd Quarters], 2001
Box 16, Folder 3	[TEI - Excalibur "L" A Non-Nuclear Strategic Deterrent (NNSD) by Capt. R.C. Truax, USN Ret.], June 2007
Box 16, Folder 4	Phase III Before 4th Q [Excalibur Integrated Hot Fire Test Plan/Procedures, Modified LR89 Engine], July 16, 2001
Box 16, Folder 5	TEI - A Proposed Business Plan for "American Spacelines", Oct. 2001
Box 16, Folder 6	Schafer Inventory [Information Matrix re: Schafer Corp. Hardware - Major Hardware Only], Nov. 2001
Box 16, Folder 7	NNICBM (WWW) [War Without Wings], 2001-2002
Box 16, Folder 8	Turki [Turki-al-Saud], 2001-2002 Notes: Includes correspondence, parts list & costs, calculations and a diagram.
Box 16, Folder 9	Form 1437, 2001-2002
Box 16, Folder 10	New Co. [Company?] Commercial Business Money Raising, 2002
Box 16, Folder 11	X-4 Tech [Drawings], 2002
Box 16, Folder 12	Spaceline, 2002
Box 16, Folder 13	Internal TEI Financial Matters, 2002
Box 16, Folder 14	TEI Letters from Big Shots, 2002-2003
Box 16, Folder 15	[Darrell] Issa UTTAS [Utility Tactical Transport Aircraft System], 2004
Box 16, Folder 16	Articles that Mention Bob, 2005
Box 16, Folder 17	[Spiral Notebook of Calculations], UNDATED
Box 16, Folder 18	LORD Briefing, UNDATED

	Notes: Transparencies, 35mm negatives.
Box 16, Folder 19	CAL [California] Court Case, Lease Termination, UNDATED
Box 16, Folder 20	Some Weird Rockets [I Have Known,] Original, UNDATED Notes: Figures to be used in a publication?
Box 16, Folder 21	Steam Rockets, UNDATED Notes: Includes the paper "Hot Water Rockets, Development and Applications" by RC Truax.
Box 16, Folder 22	Small Sounding Rocket (TEI) - Technical. TEI General, UNDATED
Box 16, Folder 23	Old TEI Documents (Logo, etc.) - Admin. TEI General, UNDATED
Box 16, Folder 24	Proposal Pieces, UNDATED
Box 16, Folder 25	Low-Cost Launch Vehicle - Reference - TEI General, UNDATED
Box 16, Folder 26	RCT [Robert C. Truax] Bio's, UNDATED
Box 16, Folder 27	[Stationary?], UNDATED
Box 16, Folder 28	Miscellaneous Illustrations, UNDATED
Box 17, Folder 1	Seahorse D (TEI Design) - Technical - TEI General, UNDATED
Box 17, Folder 2	Small Launch Vehicle Options (Air Force) Briefing - TEI General, UNDATED
Box 17, Folder 3	RSLP Business Plan by Space & Missile System Center, UNDATED
Box 17, Folder 4	Color Copies, UNDATED Notes: Color xeroxes of photos of rockets and equipment.
Box 17, Folder 5	NNICBM Brief Charts, UNDATED
Box 17, Folder 6	[A Business Plan for World Spacelines Offered by Truax Engineering, Inc.], UNDATED
Box 17, Folder 7	Propellant, UNDATED
Box 17, Folder 8	TEI - Venus [Vapor-Pressured Expandable Nozzle Upper Stage,] an ASPS Proposal, UNDATED
Box 17, Folder 9	[Aerojet-General Corporation. Sacramento Plant - Saturated Propellants for Liquid Propellant Rocket Engines by Truax, Sprow & LaBotz], UNDATED
Box 17, Folder 10	[Why the Moon... & Beyond. A Synopsis by Arthur C. Clarke], UNDATED

Box 17, Folder 11	[Preliminary Design of a 350 lb Thrust Topping Turbine Rocket Engine], UNDATED
Box 17, Folder 12	Business Cards, UNDATED
Box 17, Folder 13	Space Shuttle News Reference [Manual by NASA], UNDATED
Box 17, Folder 14	[A Program to Demonstrate the Feasibility of Sea Launch, Recovery, and Reuse of Ballistic Missiles & Space Launch Vehicles], UNDATED
Box 17, Folder 15	TEI Historical Color Viewgraphs, UNDATED
Box 26	[Miscellaneous Oversize], UNDATED Notes: Rolled drawing removed from "X-3 Center Section" folder in Box 19; "Seahorse" decals; damaged paper articles from Omni, Newsweek, etc.; Truax's BS in Aeronautical Engineering; Group photo of Project Private Enterprise, with signatures, marked 1980; newspaper articles about Truax mounted on cardboard.

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Series 2: Papers Authored by R.C. Truax, 1938-2002

Box 18-19

Box 18, Folder 1-5	[Miscellaneous Papers/Speeches/Articles by R.C. Truax], 1938-2002
Box 18, Folder 6	[The Hydrogen-Peroxide Topping-Turbine Rocket Engine Article & Drawings by R.C. Truax], Circa 1948-circa 1956
Box 18, Folder 7	Means for Making the Guided Missile Submarine A Primary Naval Weapon by R.C. Truax, CDR. USN, 1955
Box 18, Folder 8	Dawn of the Space Age by Robert C. Truax, Commander, USN, Circa 1955
Box 18, Folder 9	Low Pressure Rockets [Speech/Paper] by Cmdr. R.C. Truax, USN, June 1957
Box 18, Folder 10	Rocket Engines for Outer Space by Cmdr. R.C. Truax, USN, 1957
Box 18, Folder 11	From Airlines to Spacelines? R.C. Truax Papers, Circa 1963
Box 18, Folder 12	The Pressure-Fed Booster – Dark Horse of the Space Race R.C. Truax, TEI, Circa 1968
Box 18, Folder 13	End of the Space Age? R.C. Truax Papers, Dec. 1972
Box 19, Folder 1	[The Non-Nuclear ICBM - A Weapons System for the Post Cold-War Era by Capt. R.C. Truax, USN (Ret.) A Paper Presented at the US Naval Postgraduate School], March 12, 1991
Box 19, Folder 2	NNOBM [Non-Nuclear Orbital Bombardment] Manuscript, 1991 Notes: Paper title: "Non-Nuclear Orbital Bombardment System."
Box 19, Folder 3	[Draft: The Real Problem of National Security and A Simple Solution by R.C. Truax, 8/1/95]
Box 19, Folder 4	Bob's Papers, 1998, 2001 Notes: "The Future of Earth-to-Orbit Propulsion," "Critique of Cellular Rocket Concept," "War Without Wings."
Box 19, Folder 5	Critique of the Cellular Rocket Concept a Paper by R.C. Truax (Unpublished), Rev. 5.0 – Dated 2/99
Box 19, Folder 6	[Winged Vs. Ballistic Recovery of Reusable Launch Vehicles by Capt. R.C. Truax - A Paper Given at the 2000 Core Technologies for Space Systems Conference Nov. 30 - Dec. 1, 2000 Colorado Springs, CO]
Box 19, Folder 7	Truax Papers, January 2002 Notes: This notebook contains a compilation of written documents by Truax during his tour at KACST during Jan 2002.

Box 19, Folder 8	Evolution of Pump-Fed Rocket Engines by R.C. Truax, UNDATED
Box 19, Folder 9	Assured Access to Space by R.C. Truax, TEI, UNDATED
Box 19, Folder 10	The Launch Vehicle Crises [by R.C. Truax?], UNDATED
Box 19, Folder 11	[Some Weird Rockets I Have Known by Capt. R.C. Truax, USN (Ret.)], UNDATED
Box 19, Folder 12	Cheap Transportation for Cheap Satellites by Capt. R.C. Truax, UNDATED

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Series 3: Drawings, 1939-2002

Box 19-21

Box 19, Folder 13-14	[Miscellaneous Drawings], 1939-1999 Notes: These drawings were found loose in the collection (unlike the other "Miscellaneous Drawings" file unit that Truax named and created.) They include drawings with blank title blocks, drawings created by other companies and some only partially identified TEI drawings.
Box 19, Folder 15	Forward Section, 1978, ?
Box 19, Folder 16	X-3 Center Section, 1980 Notes: Oversized rolled drawing originally here removed and placed in Box 26.
Box 19, Folder 17	Historical Prop Valve, 1980 Notes: Transfer Sleeve Assembly & Details, Cover Instrument Package SEALAR, Container Instrument Panel SEALAR, and 1 unnamed drawing.
Box 20, Folder 1	Transfer Sleeve Assembly & Details, 1980
Box 20, Folder 2	Transfer Sleeve 1005-7 / 1005-22, 1980
Box 20, Folder 3	Center Section, 1980
Box 20, Folder 4	Engine Section, 1980-1981
Box 20, Folder 5	[Missing Label], 1980, 1989
Box 20, Folder 6-7	Recovery System, 1980-1990
Box 20, Folder 8	[Temporary Drawing - Round Intake G8-2-130], 1984?
Box 21, Folder 1	Inflatable Nozzle [Drawings], 1991
Box 21, Folder 2	My Sketches Vol. II, 1991-1999
Box 21, Folder 3	Extra Excalibur Drawings, Circa 1996
Box 21, Folder 4	75K Injector Drawings. Bob's Desktop File - Phase II, 1998
Box 21, Folder 5	[Drawings for Contract F04701-00-D-0204]
Box 21, Folder 6	Miscellaneous Drawings, 2002 Notes: TEI engine, fuel tank, bracket and unidentified drawings.

Box 21, Folder 7 Project Private 1005-24 / 1005-38, UNDATED

Box 21, Folder 8 Astronaut Section Capsule, UNDATED

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Series 4: Images, 1937-2000

3.6 Linear feet ((1 legal size box, 1 slim legal size box, 3 8x6x12 shoeboxes))

Box 21-25

4.1: Slides, 1937-1999

Box 21, Folder 9	Old Slides, Annapolis to Knievel, 1937-1987
Box 21, Folder 10	TEI Slides, 1966-1997
Box 21, Folder 11	[Apollo / Gemini], 1969-1972
Box 21, Folder 12-13	Project Private Enterprise, X-3 Slides, Circa 1977 - Circa 1985
Box 22, Folder 1	SEALAR, 1989
Box 22, Folder 2	3rd Quarter Status Report, SBIR Phase II (not used in PPT), Circa 1999
Box 22, Folder 3	[Two Glass Mounted Slides], UNDATED

4.2: Photos, Negatives & Floppy Discs, 1943-2000

Box 22, Folder 4	[Miscellaneous Negatives], 1943-1950
Box 22, Folder 5	Legion of Merit Ceremony Photos, 1945, 1957
Box 22, Folder 6	Old Photographs, 1951, 1996
Box 22, Folder 7	American Spaceline Figures - A Business Plan for Getting Sponsors For Our X-Prize Entry, Sept. 18, 2000
Box 22, Folder 8	[Miscellaneous 5x7 Prints], UNDATED
Box 22, Folder 9	[Group Photo], UNDATED
Box 23-25	[Photo Prints & Negatives] Notes: Evel Knievel, Surface Effect Ship (SE5) Project - 71, SEALAR, SEALAR Days, X-3 Failure, Truax Engineering, Turki Stand Progress 9-29-99, Rancherous Shop, Report 10-26-99, [Misc.], [Misc. Negatives] and [Floppy Discs.]

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