



APOLLO PROGRAM

7/1/69

GLOSSARY OF ACRONYMS
AND ABBREVIATIONS

111.3

SATURN HISTORY DOCUMENT
University of Alabama Research Institute
History of Science & Technology Group

Date ----- Doc. No. -----

APOLLO PROGRAM

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GLOSSARY OF

ACRONYMS

AND

ABBREVIATIONS

This glossary of acronyms and abbreviations commonly found in Apollo Program documentation has been compiled by the Manned Spacecraft Center Historical Office.

The purpose of this glossary is to provide a working tool for historians and other persons performing research activity. Such personnel, in their work, will undoubtedly encounter many additional items which should be included in this glossary. Therefore, this has been purposely double-spaced to provide room for these additional entries.

Ivan D. Ertel

July 1, 1969

AA	Antenna assembly
AAA	Active acquisition aids
AAE	Antenna assembly electronics
AAM	Air-to-air missile
AAO	Astronaut Activities Office
ABL	Allegany Ballistics Laboratory
ABM	Advanced bill of materials
ABMA	Army Ballistic Missile Agency
ABT	Air bearing table
AC or ac	Allis Chalmers Manufacturing Company Alternating current Audio center
ACA	Attitude control assembly Attitude controller assembly Audio center assembly
ACBWG	Apollo Reentry Communications Blackout Working Group
ACC	Automatic control console
ACCEL	Acceleration Accelerometer
ACCUM	Accumulator
ACE	Acceptance checkout equipment Automatic checkout equipment
ACED	AC Electronics Division
ACERP	Advanced Communication Electronics Research Plan

ACES	Acceptance checkout and evaluation system Acceptance control equipment section
ACK	Acknowledge
ACM	Apollo configuration management Audio center module
ACME	Attitude control and maneuver electronics
ACOE	Automatic checkout equipment
ACOUST	Acoustic
ACP	Apollo checkout procedure Audio control panel
ACPM	Attitude control propulsion motor
ACR	Advent control room
ACRE	Automatic checkout and readiness equipment
A&C roll	A&C cluster of RCS engines controlling roll
ACRC	Audio center-receiver (NAA)
ACS	Attitude control subsystem
ACSP	AC Spark Plug Division of General Motors
ACT	Actuator
ACTM	Audio center-transmitter (NAA)
ACTR	Actuator
A/D	Analog to digital (converters)
ADA	Angular differentiating accelerometer
ADAPT	Adapter
ADC	Air Defense Command Analog to digital converter

ADCN	Advance drawing change notice
ADF	Aeronutronic Division, Ford Motor Company Automatic direction finding (equipment)
ADMT	Agena detailed maneuver table
ADP	Acceptance data package Automatic data processing
ADPL	Apollo Data Processing Laboratory (NAA)
ADPS	Ascent and descent propulsion subsystem Automatic data processing system
ADPT	Adapter
ADS	Address display subsystem
ADTD	Apollo docking test service
ADVAC	Advent acquisition module
ADVEP	Advent ephemeris module
AE	Ascent engine
A&E	Azimuth and elevation
AEA	Abort electronics assembly
AEB	Aft equipment bay
AEC	Atomic Energy Commission
AED	Agena ephemeris data Astro-Electronics Division, RCA
AEDC	Arnold Engineering Development Center
AEDC-VKF	Arnold Engineering Development Center-- Von Kármán Facility
AELD	Ascent engine latching device

AEP	Ascent engine pressurization
AEPG	Army Electronics Proving Ground
AES	Apollo extension system
AF	Air Force
AFB	Air Force Base
AFBMD	Air Force Ballistics Missile Division
AFBMTTC	Air Force Ballistic Missiles Training Center (Vandenberg AFB)
AFBSD	Air Force Ballistic Systems Division (Norton AFB, San Bernardino, Calif.)
AFC	Automatic frequency control
AFCRC	Air Force Cambridge Research Center (Hanscom Field, Bedford, Mass.)
AFCRL	Air Force Cambridge Research Laboratory
AFCS	Automatic flight control system
AFD	Assistant Flight Director
AFDO	Assistant Flight Dynamics Officer
AFETB	Air Force Experimental Track Branch (Edwards AFB, Calif.)
AFETR	Air Force Eastern Test Range
AFFTC	Air Force Flight Test Center (Edwards AFB, Calif.)
AFLC	Air Force Logistics Command
AFMDC	Air Force Missile Development Center (Holloman AFB, N. Mex.)
AFMSTS	Air Force Missile Static Test Site (Edwards AFB, Calif.)

AFMTC	Air Force Missile Test Center
AFOAR	Air Force Office of Aerospace Research
AFOSR	Air Force Office of Scientific Research (Washington, D. C.)
AFOTC	Atlantic Fleet Operational Teletype Circuit
AFR	Access function register
AFRD	Air Force research and development
AFRM	Advanced flight research model Airframe
AFSC	Air Force Systems Command
AFSSD	Air Force Space Systems Division
A/G	Air-to-ground
AG	Attitude gyro
AGACS	Automatic ground-to-air communications system
AGANI	Apollo guidance and navigation information
AGAP	Attitude gyro accelerometer package
AGAVE	Automatic gimbaled-antenna vectoring equipment
AGC	Aerojet-General Corp. Apollo guidance computer Apollo guidance control Automatic gain control Automatic guidance control
AGCS	Automatic ground control system
AGCU	Attitude gyro coupling unit
AGE	Aerospace ground equipment Apollo ground equipment Apollo guidance equipment

AGGD	Apollo guidance ground display
AGNCS	Abort guidance and navigation control system
AGNE	Apollo guidance and navigation equipment
AGNIS	Apollo guidance and navigation industrial support
AGS	Abort guidance system Aerospace ground support Apollo guidance subsystem
AH	Ampere hour Attitude hold
AHS	Aft heatshield
AIAA	American Institute of Aeronautics and Astronautics
AIC	Analog input commutator
AICBM	Anti-intercontinental ballistic missile
AIC Delta	Increment of command angle
AIDTP	Apollo Integrated Development Test Plan
AIG	Inner gimbal angle
AI	Apollo implementing instructions
AIR	AiResearch Manufacturing Co.
AIRCOM	Aerospace communications complex
AIRCOMNET	Air communications network
AIROPNET	Air operations network
AIS	Ascension Island Station
AIW	Atlantic injection window
AL	Aluminum Apolune

ALDC	Automatic load and drive control
ALEMS	Apollo LEM sensors
ALFA	Air-lubricated free attitude (trainer)
ALIAS	Algebraic logic investigation of the Apollo system
ALIGN	Alignment
ALLM	Apollo lunar landing module
ALSD	Apollo lunar surface drill
ALSEP	Apollo lunar surface experiments package
ALSS	Apollo logistic support system
ALSSSP	Apollo Lunar Surface Scientific Simulation Program
ALT	Altitude
AM or am	Ammeter Amplitude modulation
AMAL	Aviation Medical Acceleration Facility (Navy)
AMB	Ambient
AMC	Air Materiel Command
AME	Angle-measuring equipment
AMF	American Machine and Foundry Co.
AMG	Middle gimbal angle
AMMP	Advanced Manned Missions Program
AMN	Advance material notice
AMOO	Aerospace Medical Operations Office
AMP or amp	Ampere Amplifier Automatic mission programmer

AMPL	Amplifier
AMPS	Automatic message processing system
AMPTF	Apollo Mission Planning Task Force
AMR	Altitude marking radar Atlantic Missile Range
AMRO	Atlantic Missile Range Operations
AMS	Acoustic measurement system Apollo mission simulator Authority for material substitution
AMW	Angular momentum wheel
AMX	Amplitude modulation transmitter-receiver
ANG	Angular
ANL	Analog
ANNA	Army-Navy-NASA-Air Force Satellite
ANO	Alpha-numeric output module
ANT	Antenna Antigua Island
ANWG	Apollo Navigation Working Group
AOA	Angle of attack
AOC Delta	Increment of command angle
AOD	Apollo Operations Director
AOG	Outer gimbal angle
AOH	Apollo Operations Handbook
AOMC	Army Ordnance Missile Command
AOS	Acquisition of signal

AOT	Alinement optical telescope
AP	Accelerometer package Automation plane Autopilot
APA	Abort programmer assembly
APATS	Automatic programmer and test system
APC	Automatic phase control
APCHE	Automatic programmed checkout equipment
APD	Apollo Program Director
APG	Aberdeen Proving Grounds, Md. Air Proving Ground (Eglin AFB, Fla.)
API	Alignment program indicator
APK	Accelerometer package
APLSS	Auxiliary portable life support system
APO	Apollo Procurement Office Apollo Program Office Apollo Project Office
APOP	Apollo Preflight Operating Procedures
APOTA	Automatic positioning telemetering antenna
APR	Advance parts release Anticipated personnel requirements
APS	Accessory power system Ascent pressurization system Ascent propulsion subsystem Auxiliary propulsion system
APT	Auxiliary picture transmission
APTS	Automatic picture transmission subsystem
APTT	Apollo part task trainer
APU	Auxiliary power unit Auxiliary propulsion unit

AQAID	Acquisition aid
AQL	Acceptable quality level
A/R	Atlantic Research Corp.
AR	Acquisition and receive
ARA	Attitude reference assembly Auxiliary recovery antenna
ARC	Ames Research Center Attitude reference computer
ARCC	Atlantic Recovery Control Center
ARD	Apollo requirements document
ARDC	Air Research and Development Command
ARGMA	Army Rocket and Guided Missile Agency
A/RIA	Apollo range instrumented aircraft
ARIP	Automatic rocket impact predictor
ARIS	Advanced range instrumentation ship
ARL	Acceptable reliability level
ARPA	Advanced Research Projects Agency
ARQ	Teletype error control system, automatic request
ARRS	Aerospace Rescue and Recovery Service
ARRSG	Altitude and rendezvous radar stimulus generator
ARS	Air Rescue Service Altimeter and rendezvous sensor Atmosphere revitalization section Atmosphere revitalization system Attitude reference system
ARSSG	Atmospheric Reactants Supply Subsystem Group

ARTOC	Army Tactical Operations Control
AS or A/S	Aerospace Corporation Apollo Saturn Ascent stage
ASA	Abort sensor assembly
ASB	Apollo Support Branch
ASC	Ascension Island
ASCO	Automatic sustainer cutoff
ASCP	Attitude set control panel
ASCS	Automatic stabilization and control system
ASD	Apollo standard detonator
ASDE	Airport surface detection equipment
ASFTS	Auxiliary systems function test stand
AS/GPD	Attitude set and gimbal position display
AS/GPI	Attitude set and gimbal position indicator
ASI	Apollo standard initiator Augmented system ignition
ASIS	Abort sensing and implementation system
ASK	Amplitude shift keying
ASME	American Society of Mechanical Engineers
ASO	Alternate sequence of operations Apollo Support Office
ASP	Apollo Spacecraft Program
ASPO	Apollo Spacecraft Program Office
ASPR	Armed Services Procurement Regulation
ASSA	Apollo (Block I) space suit assembly

ASSB	Apollo Site Selection Board
ASSY	Assembly
AST	Apollo systems trainer
ASTD	Advanced Spacecraft Technology Division
ASTIA	Armed Services Technical Information Agency
ASTRO	Astronaut
AT	Acceptance test
ATA	Assembly and test area
ATCA	Attitude and translation control assembly
ATCE	Ablative thrust chamber engine Attitude and translation control electronics
ATCU	Attitude translation and control unit
ATDWG	Apollo Test Data Working Group
ATL	Advanced Technology Laboratories
ATM	Apollo telescope mount
ATN	Attenuate
ATO	Apollo Test Operations
ATP	Acceptance test package Acceptance test procedure Apollo test procedure
ATR	Activation task request Apollo test request Apollo test requirements Atlantic Tracking Range
ATS	Angle tracking sensor Atlantic test site Atlantic tracking ship

ATSE	Angle tracking sensor equipment
ATT	Attenuator Attitude
ATTS	Automatic telemetry tracking systems
ATW	Aerospace Test Wing
AU	Astronomical unit
AUTO	Automatic
AUX	Auxiliary
AUX ECA	Auxiliary electronic control assembly
AVC	Automatic volume control
AVCO	Aviation Corporation of America
AVE	Aerospace vehicle equipment Average
AVSE	Assistant Vehicle System Engineer
AWG	American Wire Gage
AWL	Apollo wire list
A-X	Alternate transmitter units
AZUSA	Tracking system

BAC	Beech Aircraft Co. Bell Aerospace Corp. Bell Aerosystems Co. Bell Aircraft Co.
BARO	Barometric Barostat
BAT	Battery
BATT	Battery
BBRC	Ball Brothers Research Corp.
BCD	Binary coded decimal
BCI	Battery condition indicator
BCN	Beacon
BCO	Booster cutoff
BCRT	Binary code range time
BDA	Bermuda
BDPAS	Bandpass
BECO	Booster engine cutoff
BEPP	Best estimate propulsion parameters
BER	Bit error rate
B/F	Buffer/formatter
BF	Beat frequency oscillator
B/F/S	Btu per square foot-second
BGS	Backup guidance system
B/H	Blockhouse
BHN	Brinnell hardness number

BIOS	Biological satellite
BIT	Built-in test
BL	Bondline
BLOW	Blower
BLRT	Bioastronautics Laboratory Research Tool
B/M	Bench maintenance Bill of material Buffer/multiplexer
BMAG	Body-mounted attitude gyro
BME	Bench maintenance equipment
BMEWS	Ballistic Missile Early Warning System
BMG	Body-mounted gyro
BMTE	Bench maintenance test equipment
BND	Bending
BND BR	Bending bridge
BNDRY	Boundary
BOA	Broad ocean area
BOD	Beneficial occupancy date
BOSS	Bio-astronautic Orbiting Space Station
BP	Blood pressure Boilerplate
BPC	Boost protective cover
BPF	Band pass filter
BPS	Bits per second
BRL	Ballistic Research Laboratories

BRN	Brown-Root-Northrop Co,
BSD	Ballistic Systems Division
BSE	Booster systems engineer
BST	Brief system test
BTC	Booster test conductor
BTE	Bench test equipment
BTL	Bell Telephone Laboratories
BTM	Booster telemetry monitor Bottom
BTME	Bench test maintenance equipment
BTU	British thermal unit
BU	Backup
BUGS	Backup guidance system
BULKHD	Bulkhead
BUR	Backup rate
BW	Band width
BWO	Backward-wave oscillator

CA	Cable assembly Corrective action
CADD	Computation and Data Division
CADDAC	Central analog data distributing system
CADFISS	Computation and data flow integrated subsystem
CADPO	Communications and data processing office
CAL or cal	Calorie Calorimeter
CALIB	Calibrate
CAM	Civil aeronautics manual Computer address matrix
CAN	Certification analysis network
CAPCOM	Capsule communicator Spacecraft communicator
CAPRI	Coded address private radio intercom
CAR	Corrective action report
CARR	Customer Acceptance Readiness Review
CASTS	Countdown and status transmission system
CASY	Computer acquisition system
CAT	Computer of average transients
CATH	Cathode
CB	Center of buoyancy Circuit breaker
CBA	C-band transponder antenna
C-band	3900-6200 mc

CBC	Complete blood count
CBT	Command buffer transmitter
CBX	C-band transponder
CC or cc	Capsule communicator Carrier channel Command center Command communicator Communication control Control center Control computer Cost control Cubic centimeter
CCA	Contract change authorization Control coupler assembly
CCB	Change Control Board Configuration Control Board
CCBD	Configuration Control Board Directive
CCC	Command control console Coordinate conversion computer
CCD	Central command decoder
CCFT	Controlled current feedback transformer
CCGE	Cold cathode gauge experiment
CCHS	Crew compartment heatshield
CCIT	International Consultative Committee on Telegraphy and Telephony
CCM or ccm	Cubic centimeter
CCMR	Countdown checkout maintenance and repair
CCN	Contract change notice
CCO	Contract change order Crystal controlled oscillator

CCP	Configuration control panel Contract change proposal
CCPM	Card controlled preventive maintenance
CCR	Configuration change record Configuration control record Crew Compartment Review
CC&S	Central computer and sequencer
CCS	Change control system Computer control system Console communications system
CCSD	Chrysler Corp. Space Division
CCTV	Closed circuit television Controlled-circuit television
CCU	Camera control unit Communications carrier umbilical Communications control unit
CCW	Counterclockwise
C&D	Controls and displays
CDB	Current data bit
CDC	Command and data handling console Computer development center Confined detonating charge Control and display console Control Data Corp.
CDCO	Control display coupling unit optics
CDCU	Communications digital control unit
CDDT	Countdown demonstration test
CDF	Confined detonating fuse
CDH	Constant differential height

CDP	Cabin display panels Central data processor
CDR	Command destruct receiver Configuration Design Review Critical Design Review
CDRC	Computation and Data Reduction Center
CDRS	Computer data recording system
CDS	Controls and displays subsystem
CDU	Control data unit Coupling data unit Coupling display unit
CDUM	Coupling display unit IMU
CDUO	Coupling display unit optics
C/E	Communications/electronics
CE	Circular error
CEB	Contract Engineering Branch
CED	Checkout Engineering Division
CEI	Contract end item Contractor end item
CEIPA	Communications electronics implementation plan amendment
CEP	Circular error of probability Computed ephemeris position
CES	Control electrical section Control electronics system Crew equipment system Crew escape system
CET	Capsule elapsed time Critical environment tests

CETEX	Committee on Contamination by Extraterrestrial
C ² F ²	Crew compartment fit and function
CFD	Cumulative frequency distribution
CFDN	Cryogenic fluid distribution network
CFE	Contractor furnished equipment
cfm	Cubic feet per minute
CFP	Contractor furnished property
CFTF	Cold Flow Test Facility
CG or c. g.	Center of gravity
CGSS	Cryogenic gas storage system
CHBAB	Committee on Hearing, Bioacoustics, and Biomechanics
CHAN	Channel
CHE	Cabin heat exchanger
CHG	Change Charge
CICC	Central Information Control Center
CIF	Central Instrumentation Facility
CIMU	Component integration mockup
CIR	Circle Circuit
CIRCUM	Circumferential
CIS	Christmas Island Station Communications and instrumentation system
CITE	Controller-integrated test equipment

CK	Check
CKT	Circuit
CL or C/L	Centerline Closed loop Closure
CLC	Conversion and limit check module
CLM	Core logic module
CLMT	Closed loop maneuver table
CLT	Communication line terminal Communication line termination
CM	Center of mass Circularization maneuver (coelliptic) Command module Contract modification
CMC	Command module computer
CMD	Command
CMO	Configuration Management Office Contingency mode of operation
CM/SM	Command and service modules
CMU	Compatibility mockup
CN	Change notice Command number
CNI	Grand Canary Island
CNR	Carboxy-nitroso rubber
CNTR	Center
CNV	Cape Kennedy, Fla. Carnarvon
c/o	Checkout

CO	Change order Checkout Coder output Contracting officer Crystal oscillator
CO ₂	Carbon dioxide
COAS	Crew optical alignment sight
COAX	Coaxial
COBI	Coded biphase
COBRA	Compatible onboard ranging
COED	Computer operated electronic display
COFW	Certification of flight worthiness
COGS	Continuous orbital guidance system
COLIDAR	Coherent light detection and ranging
COMB	Combination
COMM	Communications Commutator
COMP	Computer
COMPEN	Compensator
COMPMR	Commander, Pacific Missile Range
COMPR	Compressor
COMPT	Compartment
COMSAT	Communications satellite
CON	Connector
COND	Condenser Conditioner

CONE	Conical
CONT	Continuity Control
CONTLR	Controller
CONUS	Continental United States
COS	Cosine
COSAR	Compression scanning array radar
COTAR	Correlation tracking and ranging
C/P	Cartesian to polar converter
CP	Change proposal Circular pitch Circularly polarized Coldplate Communications processor Control programmer Crew provisions
CPCU	Commutator programmer control unit
CPDC	Command processor distributor control
CPDS	Command processor distributor storage
CPE	Contractor performance evaluation
CPFF	Cost plus fixed fee
CPI	Characters per inch
CPIF	Cost plus incentive fee
CPLR	Coupler
CPM or cpm	Command processor module Critical path method Cycles per minute

CPS or cps	Coldplate section Crew provisions subsystem Cycles per second
CPSM	Clipped process speech modulation
CR	Change recommendation
CRA	Change request and authorization Controller requested analysis
CRC	Collins Radio Co.
CRF (D)	Command review and format display
CRF (M)	Capsule review and format measurements
CRISP	Cosmic Ray Ionization Spectrograph Program
CRITICOM	Critical communications
CRIU	Computer recorder interface unit
CRO	Carnarvon, Australia Cathode ray oscilloscope
CRP	Certification requirement paragraph
CRT	Cathode ray tube
CRTI	Cathode ray tuning indicator
CRYO	Cryogenics
C/S	Counts per second
CS	Communication subsystem Crew system
CSC	Civil Service Commission Communications systems center Control section coupler Cosecant computing amplifier
CSD	Computer Systems Director Crew Systems Division

CSDV	Combined Systems Dynamic Verification Control Subsystem Development Vehicle
CSI	Concentric (coelliptic) sequence initiator
CSM	Command and service modules
CSQ	<u>Coastal Sentry Quebec</u>
CSR	Check status register Control shift register
CSS	Clock subsystem Communications stimulus subsystem Computer subsystem Cryogenic storage supply Cryogenic supply system
CST or c. s. t.	Central standard time Combined Systems Test
CSTF	Control system test facility
CSTU	Combined system test unit
CSU	Combined stimuli unit
CT	Command transmitter
CTA	Certification test approval Cryogenic tank assembly
CTC	Cabin temperature controller
CT&DDS	Central timing and data distribution system
CTE	Central timing equipment
CTI	Central Technology, Inc.
CTL	Component test laboratory
CTN	Canton Island Certification test network
CTP	Computer tape processor

CTR	Certification test requirements Counter
CTS	Central timing system Countdown transmission subsystem
CTT	Card-to-tape tape
CTU	Combined test unit Compatibility test unit Control and test unit
CTV	Control test vehicle
cu	Cubic
CUE	Command uplink electronics Communications unit executor
cu ft	Cubic foot
cu ft/sec	Cubic feet per second
cu in.	Cubic inch
CUR	Current
CV	Chance Vought Check valve
CVC	Commercial voice circuits
CVR	Change verification record
C&W	Caution and warning subsystem
CW	Clockwise Continuous wave
CWE	Caution and warning electronics
CWEA	Caution and warning electronics assembly
CWG	Constant wear garment

CY Calendar year

CYI Grand Canary Island

D/A	Digital to analog Distribution assembly Double amplitude
DAC	Digital-to-analog computer Digital-to-analog converter Douglas Aircraft Co.
DACAPS	Data collection and processing system
DACON	Digital to analog converter
DAE	Data acquisition equipment
DA&P	Data acquisition and processing
DAP	Digital autopilot
DARE	Data automatic reduction equipment
DARS	Data acquisition and recording system
DAS	Data acquisition system
DB or db	Deadband Decibels
DBM	Decibels referred to 1 milliwatt
DBV	Decibels referred to 1 volt
DBW	Decibels referred to 1 watt
DC or dc	Differential correction Direct current Displays and controls
DCA	Digital command assembly
DCAS	Data collection and analysis system
DCC	Data communication channel Data control channel Design change control
DCIB	Data communication input buffer

DCM	Destruct command
DCN	Drawing change notice
DCOS	Data communication output selector
DCR	Design certification review Digital clock receiver
DCRF	Drawing cancellation replacement form
DCS	Digital command system
DCT	Digital clock transmitter
DCU	Data control unit Digital control unit Display and control unit
DCV	Direct current voltage
DDA	Digital differential analyzer
DDAS	Digital data acquisition system
DDB	Digital display boards
DDC	Direct data channel Direct data connection
DDP	Digital data processing
DDR	Design drawing requirement Direct data receiver
DDRE	Director of Defense Research and Engineering
DDT	Digital data transceiver Doppler data translator
DDTE	Digital data terminal equipment
DE	Deflection error Descent engine
DECA	Descent engine control assembly

DECP	Descent engine cutoff probe
DECR	Decrease
DEDA	Data entry and display assembly
deg	Degree
deg C	Degrees centigrade
deg F	Degrees Fahrenheit
deg/s	Degrees per second
DEI	Design Engineering Inspection Development engineering information
DELTA	Detailed labor and time analysis
DELVY	Delivery
DEM	Development engineering module
DEMOD	Demodulate Demodulator
DEP	Deflection error probability
DEPL	Deploy
DET	Detector Digital event timer
DETP	Design evaluation test program
DEU	Digital evaluation unit
DEV	Design evaluation--vehicle Deviation
DEW	Distant early warning
Dewar	Air research facility tank
DF	Deadface Direction finding

DFI	Development flight instrumentation
DFR	Deadface relay
DFS	Dynamic flight simulator
DFT	Design Feasibility Tests
DGS	Data ground station
DGU	Display generator unit
DGZ	Desired ground zero
DIFF	Differential
DIG	Digital
DIPS	Dual impact prediction system
DIRAM	Digital ranging machines
DIS	Data input subsystem
DISCR	Discriminator
DISP	Display
DIST B	Distribution
DISTRAM	Digital space trajectory measurement system
DITMCO	Drive In Theater Movie Co. (inspection process) Trademark for continuity test sets
DITU	Digital interface test unit
DLT	Design lab test
DMC	Differential midcourse correction
DME	Digital measuring equipment
DMO	Digital multiplexer output
DMP	Desired mean point of impact

DMS	Desired minutes, seconds
DMT	Detailed maneuver table
DO	Digital multiplexer output
DOD	Department of Defense
DOETS	Dual object electronic tracking system
DOF	Degrees of freedom
DOPLOC	Doppler phased lock
DOVAP	Doppler velocity and position
DP	Differential pressure Dimetral pitch Double pole
DPC	Data processing center
DPDM	Differential pulse duration modulation
DPG	Dynamic program generator
DPS	Descent propulsion system
DPT	Design Proof Tests
DQM	Data quality monitor
DR	Data receiver Decoder receiver Discrepancy record Drive
DRB	Data Review Board
DRE	Data reduction equipment
DRED	Data router and error detector
DRG	Drogue
DRI	Data rate indicator

DRM	Design reference mission
DRMCE	Design reference mission consumables expended
DRPF	Data reduction and processing facility
DRS	Downrange ship Downrange stations
DRUL	Downrange uplink
D/S or DS	Descent stage (LM) Displays subsystem
DSB	Double sideband
DSC	Dynamic standby computer
DSCP	Dynamic standby communication processor
DSE	Data storage equipment
DSEA	Data storage equipment assembly
DSF	Design feasibility test
DSIF	Deep Space Instrumentation Facility
DSIS	Deep space instrumentation system
DSKY	Display and keyboard
DSN	Deep Space Network
DSS	Deep space station
DSU	Data select unit
D/T	Dump telemetry
DT	Development test Differential temperature
DTCS	Digital test command system
D/TTC	Digital-to-teletype converter

DTE	Data transmission equipment
DTP	Detailed test plan Development test procedures
DTU	Digital timing unit
DV	Delta velocity
DVD	Delta velocity display
DVM	Digital voltmeter
DVO	Delta velocity on-off
DVR	Driver
DVT	Design Verification Test Development verification testing
DVU	Delta velocity ullage Design verification unit.

E	Elevation angle
EA	Electronics assembly Erectable antenna
EAFB	Edwards Air Force Base
EAR	Engineering action request Engineering analysis report
EBW	Exploding bridge wire Explosive bridge wire
EC	Engineering Change
ECA	Electronic control assembly
ECA D	Electronic control assembly display
ECA P	Electronic control assembly pitch
ECA R	Electronic control assembly roll
ECA T	Electronic control assembly thrust
ECA X	Electronic control assembly auxiliary
ECA Y	Electronic control assembly yaw
ECD	Entry corridor display Estimated completion date Expected completion date
ECDU	Electronic coupling display unit
ECG	Electrocardiogram
ECM	Electronic counter measures
ECN	Engineering change notice
ECO	Engine combustion Engine cutoff Engineering change order
ECP	Engineering change proposal

ECPY	Electronic control assembly pitch yaw
ECS	Environmental control subsystem
ECTRC	Elapsed capsule time for retrofire (computer)
ECTRS	Elapsed capsule time for retrofire (capsule clock)
ECU	Electrical conversion unit Environmental control unit
EDA	Engineering design acceptance
EDDF	Error detection decision feedback
EDL	Engineering Development Laboratory
EDM	Electrical discharge machinery
EDP	Electronic data processing Experiment development plan
EDPM	Electronic data processing machine
EDR	Equivalent direction radiation
EDS	Emergency detection subsystem
e. d. t.	Eastern daylight time
EECS	Earth environmental compensation system
EED	Electronic explosive device
EEG	Electroencephelogram Electroencephelograph Electroencephelography
E EI	Electrical-electronic interface
EEM	Earth entry module External environmental monitoring
EET	End to end test Equivalent exposure time

EFL	Effective focal length
EFRC	Edwards Flight Research Center
EFSSS	Engine failure sensing and shutdown system
EGADS	Electronic ground arm destruct system
EGT	Elapsed ground time Estimated ground time Exhaust gas temperature
EGTR	Eglin Gulf Test Range
EHF	Extremely high frequency
EIA	Electron Industries, Association
EIAT	End item acceptance tests
EJS	Engineering job sheet
EKG	Electrocardiogram
EL	Electroluminescent
ELECT	Electronic
ELEU	Eleuthera
ELINT	Electromagnetic intelligence
ELS	Earth landing subsystem
ELSC	Earth landing sequence controller
ELSSE	Electronic sky screen equipment
E/M or EM	Engineering model Escape motor Experimental model
EMC	Electromagnetic compatibility
EMD	Entry monitor display
EMER	Emergency

EMERG	Emergency
EMF	Electromotive force
EMG	Electromyograph
EMI	Electromagnetic interference
EMP	Electromagnetic pulse
EMQ	Engineering model qualification
EMR	Electromagnetic research Engine mixture ratio Engineering malfunction report
EMS	Entry monitor system
EMTE	Electromagnetic test environment
EMU	Extravehicular mobility unit
ENC	Encode
ENG	Engine
ENI	Equivalent noise input
ENT	Equivalent noise temperature
EO	Earth orbit Engineering order
EOB	End of block
EOG	Electrooculogram
EOM	End of message
EOR	Earth orbital rendezvous
EOS	Emergency oxygen supply Emergency oxygen system
EOW	End of word
EP	Eagle-Picher

E&PL	Entry and postlanding
EPO	Earth parking orbit
EPOC	Earth parking orbit coast
EPOI	Earth parking orbit insertion Equal period orbit injection
EPS	Electrical power subsystem
EPSTF	Electrical power system test facility
EPT	Environmental proof test
EQ	Equipment
er	Earth equatorial radius
ER	Emergency repressurization
ERA	Electronic replaceable assembly
ERD	Equivalent residual dose
ERG	Electroretinograph
ERM	Earth return module Electromagnetic radiation system monitor
ERP	Eye reference point
ERR	Error
ERS	Electromagnetic radiation surveillance system
ERU	Earth rate unit
ESA	Explosive safe arm
ESB	Electrical storage battery
ES/CT	Elapsed spacecraft time
ESD	Electronics system division

ESE	Electrical support equipment
ESI	Electronic system integration
ESL	Electronics Standards Laboratory
ESM	Edible structure material
ESMU	Electronic systems mockup
ESPAR	Electronic steerable phase array radar
ESR	Erythrocyte sedimentation rate
e. s. t.	Eastern standard time
ESTF	Electronic systems test facility
ESTRC	Elapsed spacecraft time of retrofire computed
ESV	Earth satellite vehicle
E/T or ET	Elapsed time Encoder transmitter Escape tower
ETA	Estimated time of acquisition Estimated time of arrival
ETIC	Estimated time in commission
ETM	Electronic test model
ETMWG	Electronic Trajectory Measurements Working Group
ETOC	Estimated time of correction
ETR	Eastern Test Range
ETT	Estimated time of track
EU	Electronic unit
EV	Extravehicular

EVA	Extravehicular activity Extravehicular assembly Extravehicular astronaut
EVAP	Evaporator
EVC	Equivalent voice circuit Extravehicular communications
EVCT	Extravehicular crew transfer
EVDE	External visual display equipment
EVSS	Extravehicular space suit
EVSTC	Extravehicular suit telemetry and communications
EVTD	Extravehicular transfer device
EXCHR	Exchanger
EXCIT	Excitation
EXT	External
EXTRADOP	Extended-range doppler velocity and position

FA	Failure analysis
FAA	Federal Aviation Agency
FACI	First Article Configuration Inspection
FACT	Flexible automatic circuit tester Flight acceptance composite test
FAD	First article demonstrations
FADT	First article demonstration test
FAE	Final approach equipment
FAF	Flight Acceleration Facility
FAIR	Fabrication assembly and inspection record
FAR	Failure analysis report
FARADAY	Failure rate data exchange program
FAT	Flight attitude table
FATS	Flight attitude table system
F/C or FC	Ferrite core Flight control Fuel cell
FCA	Frequency control and analysis Fuel cell assembly
FCDAR	Flight control data acquisition requirements
FCH	Flight controllers handbook
FCI	Flight control integration
FCOD	Flight Crew Operations Directorate Flight Crew Operations Division
FCSD	Flight Crew Support Division
FCOV	Facility checkout vehicle

FCS	Flight controls subsystem
FCSD	Flight Crew Support Division
FCSG	Flight Control Sensor Group
FCSM	Flight combustion stability monitor
FCST	Federal Council for Science and Technology
FCT	Flight crew trainer Flow control thermostat
FCTS	Flight crew trainer simulator
FD	Flight Director
FDAI	Flight Director Attitude Indicator
FDBK	Feedback
FDI	Flight director instrument
FDME	Firing data multiplexing equipment
FDO	Flight Dynamics Officer
FDP	Flight development program
FDRI	Flight Director Rate Indicator
FDS	Fluid distribution system
FDSS	Flight dynamics support staff
FDT	Full duplex teletype circuit
FEA	Failure effect analysis
FEAT	Formal engineering acceptance test
FEB	Forward equipment bay
FEP	Flight evaluation panel
F/F or FF	Flip-flop Florida facility

FHS	Forward heatshield
FIDO (FDO)	Flight Dynamics Officer
FIT	Fabrication integration and test Fault isolation tests
FITH	Fire in the hole
FLAC	Florida Automatic Computer
FLC	Flight line camera
FLCU	Fuel loading control unit
FLEX	Flexible
FLSC	Flexible linear shaped charge
FLT	Flight
FM	Flight model Frequency modulation
FM/CW	Frequency modulated continuous wave
FMES	Full mission engineering simulator
FMIC	Frequency monitoring and interference control
FMS	Frequency measurement set
FMX	FM transmitter
F/O	Fuel to oxidizer ratio
FO	Field Office Florida Operations
FOD	Flight Operations Directorate
FORTTRAN	Formula translation
FOV	Field of vision

FP	Flame protection Freezing point
FPAR	Failed part analysis report
FPIS	Forward propagation ionospheric scatter transceiver
FPA	Fixed, ground, special purpose (radar)
FPR	Fixed performance reserve
fps	Feet per second
FPS	Flight propulsion system Frames per second
FQ	Flight qualification
FQR	Flight qualification recorder
FQTR	Flight qualification tape recorder
FR	Frame
FRACAS	Failure reporting analysis and corrective action system
FRC	Flight Research Center
FRDIS	Flight research and development instrumentation system
FREQ	Frequency
FRF	Flight readiness firing
FRM	Frame
FRR	Flight Readiness Review
fs	Full scale
FS	Flight simulator
FSC	Frequency shift carrier

FSD	Flight Systems Division Frequency sensitive demodulator
FSE	Factory support equipment Field support equipment
FSECO	First stage engine cutoff
FSF	Flight sequence firing
FSK	Frequency shift-keyed
FSN	Federal stock number
FSO	Flight Safety Office
FSRB	Flight Safety Review Board
FSS	First stage separation
FSTV	Full-scale test vehicle
ft	Foot, feet
FT	Failure test Functional test
FTA	Flight test article Flight test assistant
FTCU	Fuel transfer and conditioning unit
FTE	Factory test equipment
ft-lb	Foot-pound
FTM	Final test method Flight test manned Flight test module
ft/min	Feet per minute
FTNG	Fitting
FTP	Field test procedure Functional test procedure

ft/s	Feet per second
ft/s ²	Feet per second per second Feet per second squared
FTS	Functional test specification
ft/tn	Foot-ton
FTU	Flight test unmanned
FUNCT	Functional
FVV	Facility verification vehicle
FWD	Forward
FY	Fiscal year

G or g	Gravity
G/A	Ground-air
GA	Gyro assembly
GAC	Gemini-Apollo compiler
GAEC	Grumman Aircraft Engineering Corp.
G/A-/GR	Ground-air-ground
gal	Gallon
GAPL	Ground assembly parts list
GASTA	Gimbal angle sequencing transformation assembly
GAT	Greenwich apparent time Ground-to-air transmitter
GATP	Ground article test procedure
GATV	Gemini Agena Target Vehicle
GBI	Grand Bahama Island
GBR	Radio station, Rugby, England
G&C	Guidance and control Guidance and control subsystem
G&CD	Guidance and Control Division
gc	Gigacycles
GC	Gimbal case Ground command Guidance and control
GCA	Ground control approach Guidance coupler assembly

GCC	Gemini Control Center (NASA) Global Control Center (IBM)
GCD	Maneuver ground coverage display
GCI	Gemini configuration index Ground-control interception
GCS	Guidance and control subsystem
GCTS	Ground communications tracking systems
GCU	Guidance coupler unit Gyro coupling unit
GDA	General Dynamics/Astronautics Gimbal drive actuator
GDAA	Gimbal drive actuator assembly
GDC	General Dynamics/Convair Ground digital control Gyro display coupler
GDF	Gas dynamics facility
GDMT	Gemini detailed maneuver table
GDOP	Geometric dilution of precision
GE	General Electric Co.
GECS	Gimbaled engine control system
GEELA	Ground electronics engineering installation agency
GEN	Generator
GET	Ground elapsed time
GETS	Gimbaled engine trim system Ground-elapsed-time synchronization Ground equipment test set
GFAE	Government furnished aerospace equipment

GFE	Government furnished equipment
GFP	Government furnished property
GGC	Geocentric gravitational constant
GGCS	Generalized guidance and control system
Gha	Greenwich hour angle
GHe	Gaseous helium
GIA	Government inspection agencies
GICS	Global instrumentation control system (IBM) Ground instrumentation and communication system
GIMB	Gimbal
GISP	Ground instrumentation support plan
GLDS	Gemini launch data system
GLOTRAC	Global tracking
GLV	Gemini launch vehicle
GLVWG	Gemini Launch Vehicle Working Group
GMBL	Gimbal
GMCF	Guided Missile Control Facility
G-M C-T	Geiger-Mueller counter-tube
GME	Gimbal mounted electronics
GMP	Gemini Management Panel
GMRD	Guided Missile Range Division
GMS	Gemini mission simulator
GMT or G. m. t.	Greenwich mean time
GMTCT	Greenwich mean time contingency time

GMTDM	Greenwich mean time descent maneuver
GMTEL	Greenwich mean time earth landing
GMTEO	Greenwich mean time end of orbit
GMTIA	Greenwich mean time initiate orbit
GMTIR	Greenwich mean time initiate roll for reentry
GMTLC	Greenwich mean time landing, computed
GMTLO	Greenwich mean time launch opportunity Greenwich mean time liftoff
GMTLR	Greenwich mean time lunar rendezvous
GMTMB	Greenwich mean time moon blackout
GMTMC	Greenwich mean time midcourse correction
GMTMI	Greenwich mean time manual insertion
GMTMO	Greenwich mean time maneuver into orbit
GMTMV	Greenwich mean time minimum velocity
GMTOI	Greenwich mean time orbital insertion
GMTOM	Greenwich mean time orbit modification
GMTOCVE	Greenwich mean time optical capture volume entry
GMTPC	Greenwich mean time plane change Greenwich mean time propulsion completion
GMTPD	Greenwich mean time parachute deployment
GMTRBOPC	Greenwich mean time retrofire based on present capsule
GMTRC	Greenwich mean time retrofire computed
GMTRE	Greenwich mean time reentry
GMTRF	Greenwich mean time reliable fix

GMTS	Greenwich mean time setting
GMTTI	Greenwich mean time transearth injection Greenwich mean time translunar injection
GMTTM	Greenwich mean time initiating first terminal maneuver
GMTU	Greenwich mean time upper liftoff time
GMTVA	Greenwich mean time vehicle acquisition
G&N	Guidance and navigation subsystem
GN ₂	Gaseous nitrogen
GNC	Guidance and navigation computer
GNCS	Guidance, navigation and control subsystem
GND	Ground
GNE	Guidance and navigation electronics
G&NS	Guidance and navigation subsystem
GOE	Ground operational equipment
GOM	Government owned material
GORP	Ground Operation Requirements Plan
GOSS	Ground Operational Support Specification Ground operational support system
GOX	Gaseous oxygen
GPD	Gimbal position display GOSS Program Directorate
GPE	Government procured equipment
GPI	General Precision, Inc. General purpose inverter Gimbal position indicator

GPL	General Precision Laboratories
gpm	Gallons per minute
GPO	Gemini Program Office
GPPB	Gemini Program Planning Board
gps	Gallons per second
GPT	Gimbal position transducer
GPX	Gimbal position transducer
GQT	Ground qualification test
GRTS	Goddard real-time system
GRU	Gyro reference unit
GSA	Government Services Administration
GSCS	Ground-space communications system
GSDS	Goldstone duplicate standard
GSE	Ground support equipment
GSED	Ground System Engineering Division
GSFC	Goddard Space Flight Center
GSP	Guidance signal processor
GSPO	Gemini Spacecraft Program Office Ground Systems Project Office
GSR	Galvanic skin response
GSS	Gemini support site Ground support system
GSSC	Ground support simulation computer
GST	Greenwich sidereal time

GTA	Gemini Titan Agena
GTF	Government test facility
GTI	Grand Turk Island
GTK	Grand Turk Island
GTM	Ground test module
GTN	Global tracking network
GTRS	Ground time remaining until retrofire setting is reached
GTV	Ground test vehicle
GUS	Gusset
GYM	Guaymas, Mexico
GYRO	Gyroscope

H ₂	Hydrogen
ha	Apogee altitude
HA	Harness assembly
H-A	Hazardous area
HAA	High altitude abort
HAC	Hughes Aircraft Company
HADC	Holloman Air Development Center
HAFB	Holloman Air Force Base
HAPR	Heavyweight ascent propulsion rig
HATS	High altitude test stand
HBU	Helium booster unit
HBW	Hot bridgewire
HD	Head
HDAC	Helium distribution assembly controller
HDPR	Heavyweight descent propulsion rig
He	Helium
HEA	Heat exchange assembly
HF	High frequency (3-30 mg)
HFP	Hybrid flight plan
HERA	High frequency recovery antenna
HFX	High frequency transceiver
Hg	Mercury
HG	High gain

HGA	High-gain antenna
HGB	Hemoglobin
HI	High
HIG	Hermetically sealed integrating gyro
HL	Heel line High level
HNYCMB	Honeycomb
H ₂ O	Water
HOFCO	Horizontal functional checkout
HORIZ	Horizontal
HOSC	Huntsville Operations Support Center
hp	Perigee altitude
HPDA	Helium pressure distribution assembly
HR	Hour Hydrogen relief
HR-1	Heavyweight reaction control subsystem rig
HRA	High frequency recovery antenna
HRSU	Helium ready storage unit
HRT	High resolutions tracking
HRZ	Horizontal
H/S	Hamilton Standard Heatshield
HS	Heatshield High speed
HSC	House spacecraft

HSD	Hamilton Standard Division High speed data
HT	Heat
HTCU	Helium transfer and conditioning unit
HTR	Heater
HTS	Heat Transfer Section
HTV	U. S. S. Huntsville
HW	Hot wire
Hz	Hertz (cycles per second)

IA	Input axis
IAA	International Aerospace Abstracts
IAM	International Association of Machinists Union
IBM	International Business Machines
IBR	Inspection Board Review
I&C	Installation and checkout
IC	Intercom
ICA	Instrument controlled approach
ICBM	Intercontinental ballistic missile
ICC	Instrumentation control center
ICD	Instrumentation control drawing Interface control document Interface control drawing
ICDU	Inertial coupling data unit
ICE	Introspective checkout equipment
ICG	Inflight coverall garment
ICP	Integrated checkout plan
ICS	Internal communication system
ICTC	Inertial component temperature controller
ICTE	Inertial component test equipment
ICTV	Instrumented cylindrical test vehicle
ICW	Interrupted continuous wave
IDEP	Interservice data exchange program
IDTS	Instrumentation data transmission system

IDU	Indicator driver unit
IECO	Inboard engine cutoff
IEI	Intermediate engineering inspection
IEM	Internal environment monitoring
IES	Internal environmental simulator
IESD	Instrumentation Electronic Systems Division
IF	Intermediate frequency
IFA	Inflight analysis
IFC	Inflight comparator
IFHG	Inflight high-gain
IFLOT	Intermediate focal length optical tracker
IFLTT	Intermediate focal length tracking telescope
IFMA	Inflight monitoring assembly
IFN	Inflight maintenance
IFPMS	Inflight performance monitoring system
IFT	Inflight test
IFT&M	Inflight test and maintenance
IFTS	Inflight test system
IG	Inner gimbal Integrating gyroscope
IGA	Inner gimbal angle Inner gimbal axis
IGACE	Integrated ground automatic checkout equipment
IGM	Iterative guidance mode

IGN	Ignition
IGN&C	Integrated guidance navigation and control
IGOR	Intercept ground optical recorder
IGORTT	Intercept ground optical recorder tracking telescope
IGS	Inertial guidance system
IGSE	Integrated ground support equipment
IGY	International Geophysical Year
IIP	Instantaneous impact point
IL	Instrumentation Laboratory (MIT)
ILC	International Latex Corporation
ILCC	Integrated launch control and checkout
ILCCS	Integrated launch control and checkout system
IL-MIT	Instrumentation Laboratory-MIT
IL-RS	Intersystem link of remote station
ILS	Instrument landing system
ILU	Incoming line unit
IMBLMS	Integrated medical and behavioral laboratory measurement system
IMCC	Integrated Mission Control Center
IMCCI	Integrated Mission Control Center implementation
IML	Instrumentation measurement list
IMP	Impinge Impulse Interplanetary monitoring platform Interplanetary monitoring probe

IMPED	Impedance
IMPS	Interplanetary measurement probes (JPL)
IMU	Inertial measurement unit
IN or in	Inch Inlet Inner Input
INBD	Inboard
INCR	Increase
IND	Indicator
INDIC	Indicator
INFAC	Interface
INFO	Information
INH ₂ O	Inches of water
in/in	Inch per inch
INJ	Injector
in/lb	Inch/pound
IN-PH	In-phase
in/sec	Inches per second
INS	Inertial navigation system Insertion
INST	Instrument
INSTR	Instrumentation
INSUL	Insulation
INT	Interior Internal

INTERCOM	Intercommunication
INTERCON	Interconnect
INTMED	Intermediate
INV	Inverter
I/O	Input/output
IO	Industrial operations
IOC	Initial operational capability
IOCS	Input/output control system
IOS	Indian Ocean Ship (tracking)
IP	Impact point Impact predictor
IPA	Intermediate power amplifier
IPB	Illuminated push button Illustrated parts book
IPS	Inches per second Instrumentation power subsystem Instrumentation power supply
IR	Information request Infrared
IRA	Instrumented recovery aircraft
IRACQ	Instrumentation radar and acquisition panel
IRBM	Intermediate range ballistic missile
IRFNA	Inhibited red fuming nitric acid
IRG	Instrumentation Requirements Group

IRIG	Inertial rate integrating gyro Inertial rate integrating gyro (MIT) Inertial reference integrating gyro Interrange instrumentation group
IRN	Interface revision notices
IRP	Inertial reference package
IRU	Inertial reference unit
IS	Instrumentation subsystem
ISB	Independent sideband
ISC	Industrial support contractor
ISCD	Interface specification control document
ISCMC	Interpretively simulated command module computer
ISD	Interstage separation disconnect
ISE	Industry standard equipment
ISI	Instrumentation/support instructions
ISLGC	Interpretively Simulated LM Guidance Computer
ISO	Isolation
ISOL	Isolation
I SP	Specific impulse
ISS	Inertial subsystem Input subsystem
ISTP	Instrumentation system test procedure
ITA	Integrated test area
ITF	Integrated test facility
ITI	Inspection and test instructions Inspection test instructions

ITMG	Integrated thermal meteoroid garment
ITOR	Intercept target optical recorder
ITP	Inspection test procedure
ITQ	Invitation to Quote
ITS	Integrated trajectory system
IU	Instrument unit
IUA	Inertial unit assembly
IW	Interchangeable with

JAN	Joint Air Force-Navy
JATO	Jet assisted takeoff
J-CLOT	Joint closed-loop operations test
JETT	Jettison
JFACT	Joint Flight Acceptance Composite Test
JIM	Job instruction manual
J/M	Jettison motor
JNSC	Joint Navigation Satellite Committee
JOD	Joint occupancy date
JON	Johannesburg, S. A.
JOP	Joint operating procedures
JPL	Jet Propulsion Laboratory
JSM	Jettison service module
JUP	Point Jupiter (Station 2, ETR)

K or km	Thousand
KB	Kilo bits
KBPS	Kilo bits per second
kbs	Kilobits per second
kc	Kilocycles
KFT	Kilo feet
kHz	Kilohertz
KIC	Kollsman Instrument Corp.
KLB or klb	Kilopounds
km	Kilometer
KMC or kmc	Kilomegacycles
KNO	Kano, Nigeria
KOH	Potassium hydroxide
kpps or KP/S	Kilopulses per second
KPS	Kaena Point Station (Hawaii)
KSC	Kennedy Space Center
KSR	Keyboard send-receive unit
KTS	Kodiak Tracking Station, Alaska
kw	Kilowatt

LA	Launch azimuth
LACS	LEM-Apollo communications system
LAD	Los Angeles Division (NAA)
LAET	Limiting actual exposure time
LaRC	Langley Research Center
LARC	Lighter, amphibious, resupply carrier
LASER	Light amplification through stimulated emission of radiation
LASV	Low altitude supersonic vehicle (Air Force)
LAT	Latitude
lb	Pounds
lb/ft ²	Pounds per square feet
lb/hr	Pounds per hour
LBR	Low bit rate
lb/s	Pounds per second
LBVS	Lower body vascular support
LC	Launch complex
LCA	Lighting control assembly
LCC	Launch Control Center
LCE	Launch complex equipment
LCG	Liquid cooled garment
LCO	Launch Control Officer
LCOC	Launch control officer console
LCS	Launch control system

LCTT	Launch complex telemetry trailer
LCU	Landing craft, utility Loading control unit
LCTV	Launch complex telemetry van
L/D	Length-diameter ratio Lift over drag ratio
LDEC	Launch docking events controller
LDGE	LEM dummy guidance equipment
LDP	Local data package
LDRS	LEM data reduction station
LDS	Launch data system
LDT	Level detector (NAA)
LE	Launch escape
LEA	Launch escape assembly
LEB	Lower equipment bay
LECS	LEM earth communications system
LEE	LEM electronic equipment
LEM	Launch escape motor Lunar excursion module
LE/PC	Launch escape pitch control
LEPS	Launch escape propulsion system Lunar excursion propulsion system
LeRC	Lewis Research Center
LES	Launch escape system

LET	Launch escape tower
LEV	Launch escape vehicle
LF	Low frequency
LFA	LEM Form A
LFE	Laboratory for Electronics
LFU	Lunar flying unit
LGC	LEM guidance computer Lunar module guidance computer
LGE	LEM guidance equipment Lunar geological equipment
LGP	LEM ground points
LH	Left hand
LH ₂	Liquid hydrogen
LHA	Local hour angle
LHCB	Left-handed circular polarization
LHEB	Left-hand equipment bay
LHFEB	Left-hand forward equipment bay
LIEF	Launch information exchange facility
LIN	Linear
LiOH	Lithium hydroxide
LIQ	Liquid
LJ II	Little Joe II
LL	Lincoln Laboratory (MIT) Low level Lunar landing

LLM	Lunar landing mission Lunar landing module
LLO	LEM layout
LLPM	Lunar landing propulsion module
LLRF	Lunar Landing Research Facility (LaRC)
LLRV	Lunar landing research vehicle
LLS	Lunar landing site Lunar logistic system
LLSV	Lunar logistic system vehicle
LLT	Lunar landing transfer
LLTV	Lunar landing training vehicle
LLV	Lunar logistics vehicle
LM	Land mark Lunar module
LMCS	LEM-man communications system
LME	Launch monitor equipment
LMK	Landmark
LMP	LEM Mission Programmer
LMS	LEM mission simulator Lunar mission simulator
LMSC	Lockheed Missiles and Space Co.
LMT	Local mean time
L. O.	Liftoff
LO	Launch operations Liftoff Low Lunar orbit

LO ₂	Supercritical oxygen
LOA	Lunar orbital assembly
LOB	Launch Operations Building Line of balance
LOC	Launch Operations Center Location Lunar orbit coast
LOCC	Launch operations control center
LOCPS	Lunar orbit coast pre-separation
LOD	Launch Operations Directorate
LOFAR	Low-frequency acquisition and ranging
LOG	Logic
LOI	Lunar orbit injection Lunar orbit insertion
LONG	Longeron
LONGL	Longitudinal
LOPO	Lunar Orbiter Project Office
LOR	Lunar orbit rendezvous
LORAC	Long range accuracy
LORAN	Long rate navigation
LORS	LM optical rendezvous system
LOS	Line of sight Loss of signal
LOTS	Launch optical trajectory system
LOTV	Landing operations test vehicle
LOX	Liquid oxygen

LP	Low pressure
LPA	Log periodic antenna
LPD	Landing point designation
LPFA	LEM preliminary form A
LPGE	LEM partial guidance equipment
LPH	Landing platform, helicopter
LPO	Lunar parking orbit
LPR	Liquid propellant rocket
LR	Landing radar Lunar rendezvous
LRA	LEM replaceable assemblies
LRC	Langley Research Center
LRL	Lunar Receiving Laboratory
LRRR	Laser ranging retro-reflector
LS	Landing system Life systems
LSB	Least significant bit Lower sideband
LSC	Linear-shaped charge
LSD	Low speed data
LSE	Launch sequencer equipment
LSEA	Lunar surface erectable antenna
LSEP	Lunar surface experiment package
LSF	Launch support facility
LSM	Lunar surface magnetometer

LSO	Lunar surface operations
LSP	LM specification
LSR	Lunar surface rendezvous
LSRL	Lunar Sampling Receiving Laboratory
LSS	Life support system
LSSC	LM separation sequence controller
LSSM	Lunar scientific survey module
LST	Local sidereal time Lunar surface technology
LSTU	LEM special test unit
LSV	Lunar surface vehicle
LTA	LEM test article
LTDS	Launch trajectory data system
LTM	Life test model
LTR	Liquid test rig
LTS	Launch telemetry system Launch tracking station Liftoff transmission subsystem
LTV	Ling-Temco-Vought
LTW	Launch time window
LUCOM	Lunar communications system
LULS	Lunar logistic system
LUM	Living utility module
LUT	Launch umbilical tower
LV	Launch vehicle Life vest Lift vector

LVC	LEM vendor change
LVCCS	Launch vehicle command and communications system
LVDA	Launch vehicle data adapter
LVDC	Launch vehicle digital computer
LVOD	Launch vehicles operation division
LVSE	Launch vehicle systems engineer
LVTR	Landing vehicle, tracked, reconnaissance
LW	Launch window
LWD	Launch window display

M or m	Meter
MA	Message assembler
MAB	Message assembler and buffer Missile Assembly Building
MAC	McDonnell Aircraft Corp.
MAC	MISTRAM auxiliary checkout kit
MAFSPO	Manned Space Flight Support Project Office
MAIR	Manufacturer's assembly and inspection record
MAMP	Milliampere
MAN	Manifold Manual
MANDY	KSC TM & Tracking Facility
MANIF	Manifold
MAP	Message acceptance pulse
MAR	Memory adress register
MARS	Martin automatic reporting system Military advance range ship
MASER	Micro-wave amplification through stimulated emission of radiation
MASTIF	Multi-axis spin test inertial facility
MAT	Minimum airworthiness test Mobile arming tower
MATS	Military Air Transport Service
MATTS	Multiple airborne target trajectory system
MAX	Maximum
MAX Q	Maximum dynamic pressure
MAY	Mayaguana

MBCS	Man back-pack communications system
MC or mc	Megacycles
MCA	Main console assembly
MCC	Mission Control Center Midcourse corrections
MCCDU	Manual control coupling display unit
MCCDUO	Manual control coupling display unit optics
MCC-H	Mission Control Center, Houston
MCC-K	Mission Control Center, Kennedy
MCOP	Mission control operations panel
MCP	Mission control programmer
MCR	Manual change request
MCS	Main core storage Memory control subsystem
MCW	Master caution warning
MD	Message distributor
MDA	Mission display control
MDAS	Medical data acquisition system
MDC	Main display console Mission display console Mission display control
MDCS	Master digital command system
MDE	McDonnell design equipment Monitor display equipment
MDF	Main distributor frame Mild detonating fuse

MDI	Miss-distance indicator
MDIU	Manual data insertion unit
MDK	Manual data keyboard
MDR	Major design review
MDS	Malfunction detection system Master development schedule
MDSS	Mission data support system
MDT	Mean down-time
MDU	Message distributor unit
M&DV	Map and data viewer
MEAR	Maintenance engineering analysis record
MEB	Mission Engineering Branch
MECH	Mechanized
MECO	Main engine cutoff
MED	Medium
MEI	Master end item
MEM	Mars excursion module
MERU	Multi-earth rate unit
MES	Mission event sequence
MESC	Master events sequence controller Mission event sequence controller
MESP	Mission event sequence panel
MET	Mission elapsed time
MF	Medium frequency

MFD	Mission Flight Director
MFL	Medium-focal-length tracking telescope
MFS	Magnetic field strength
MFSB	Manned Flight Surveillance Board
MG	Middle gimbal
MGA	Middle gimbal angle Middle gimbal axis
MGE	Maintenance ground equipment
MGN	Mercury-Gemini Network
MGT	Module ground test
MGZ	Mayaguez, Puerto Rico
mHz	MegaHertz
M-H	Minneapolis-Honeywell Corp.
MHD	Magnetohydrodynamics
MI	Manual input Moment of inertia
MICA	Multiple incentive contract analysis
MICS	Management information and control system
MIDAS	Missile detection alarm system Missile intercept data acquisition system
MIDOT	Multiple interferometer determination of trajectories
MIG	Miniature integrating gyro
MIKE	Microphone
mil	1/1000
MIL	Merit index list

MILA	Merritt Island Launch Area
MILS	Missile impact location system
MIN or min	Minimum Minute
MIP	Mandatory inspection point
MIRROS	Modulation inducing reactive retrodirective optical system
MISS	Miniature sofar system
MISTRAM	Missile trajectory measurement
MIT	Massachusetts Institute of Technology
MITE	Master instrumentation timing equipment Missile integration terminal equipment
MITIL	Massachusetts Institute of Technology Instrumentation Laboratory
MITOC	Missile technical operations communication
MK	Maintenance kit
ML	Moldline
MLG	Main landing gear
MLLP	Manned lunar landing project
MLS	Moon landing sequence Moon landing system
MLT	Mission life tests Mobile launch tower
MM or mm	Midcourse maneuver Millimeter
MMC	Midcourse measurement correction
MMDB	Mission Modular Data Book

MMH	Monomethylhydrazine
MMHG	Millimeter of mercury
MMI	Mass moments of inertia
MMM	Mars mission module
MMRBM	Mobile mid-range ballistic missile
MMS	McDonnell Material Specification
MMU	Midcourse measurement unit Module maneuvering unit
MNA	Main bus A
MNB	Main bus B
M&O	Maintenance and Operations
MO	Maneuver into orbit
MOC	Master operational console Master operations control Mission operation computer
MOCP	Mission operational communication processor
MOCR	Mission Operations Control Room
MOD	Modulation Modulator Module
MODEM	Modulator/demodulator
MODS	Manned orbital development system
MOL	Manned Orbital Laboratory
MON	Monitor
MOPAR	Master oscillator power amplifier radar
MOPS	Military operational phone system

MOPTARS	Multiple-object phase tracking and ranging system
MOS	Missile on stand
MOSS	Manned orbital space system
MOST	Mobile optic surveillance tracker
MOT	Motor
MOTU	Mobile optical tracking unit
MOW	Mission Operations Wing
MPA	Meteoroid penetration analysis Miniature pendulum accelerometer
MPAD	Mission Planning and Analysis Division
MPG	Multiple point ground
MPM	Maximum propelled mission
MPS	Mission preparation sheet
MPTR	Mobile position tracking radar
MQF	Mobile quarantine facility
MR	Malfunction report
MRA	Material review action
MRAD	Milliradians
MRB	Material Review Board
MRBM	Medium-range ballistic missile
MRCR	Measurement requirement change request
MRD	Material Review Disposition
MR-HR	Milliroentgens per hour
MRL	Measurement requirements list

MRR	Material review report
MRRCS	Material review record continuation sheet
MS	Measurement system Milliseconds Missile stations Mission sequencer Mission simulator Motor switch
MSB	Most significant bit
MSC	Manned Spacecraft Center
MSCC	Manned Spaceflight Control Center
MSCO	Manual sustainer engine cutoff
MSD	Most significant digit
MSE	Mechanical support equipment
MSFC	Marshall Space Flight Center
MSFEB	Manned Space Flight Experiments Board
MSFN	Manned Space Flight Network
MSI	Manned satellite inspector
m. s. l.	Mean sea level
MSO	Minesweeper, ocean
MSOP	Manned Spacecraft Operations Building
MSS	Mission status summary Mobile Service Structure
MST	Mobile service tower
MSTS	Military sea transportation service
MT	Magnetic tape
MTBF	Mean time before failure

MTBM	Mean-time between maintenance
MTBMA	Mean-time-between-maintenance actions
MTF	Mean time to failure Mississippi Test Facility
MTM	Mechanical test model
MTO	Mississippi Test Operations
MTP	Master test plan
MTPET	Mission Test Planning and Evaluation Team
MTR	Mean-time-to-repair Motor
MTS	Member-technical staff Mission training simulator
MTTR	Mean-time-to-repair
MTU	Magnetic tape unit
MTVC	Manned thrust vector control
MU	Mockup
MUC	Muchea, Australia
MUX	Frequency multiplex equipment
mv	Millivolt
MVD	Map and visual display
MVDC	Millivolts direct current
MV/M	Millivolts per meter
MVNS	Multiple vehicle N-stage
mw	Milliwatt
MXD	Multiple transmitter distributor

N	Nitrogen
N ₂	Nitrogen
NA	Naval Air
NAA	North American Aviation, Inc.
NACA	National Advisory Committee for Aeronautics
NACODE	Naval correlation detection receiving system
NADC	Naval Air Development Center
NAMTC	Naval Air Missile Test Center
NAS	National aircraft standards
NASA	National Aeronautics and Space Administration
NASC	National Aeronautics and Space Council
NASCOM	NASA world-wide communications network
NASSSB	National Academy of Sciences, Space Sciences Board
NBS	National Bureau of Standards
NAV	Navigation
NB	Narrow band Navigation base
NBTS	New Boston Tracking Site
NBWEPS	Naval Bureau of Weapons
NC	National course Normally closed Nosecone
NCAR	Nonconformance analysis report
NCR	Nonconformance report
NCRP	National Committee on Radiation Protection

nd	Nondimensional
NDR	Network data reduction
NED	Near earth data
neg	Negative
NEIF	Near Earth Instrumentation Facility
NEPD	Noise equivalent power density
neut	Neutral
N&GS	Navigation and guidance subsystem (see G&NS)
NIS	Noise improvement figure
NIRTS	New integrated range time system
NLG	Nose landing gear
nlt	Not less than
n. m.	Nautical mile
NMF	National Missile Facility
n. mi.	Nautical mile
nmt	Not more than
NO or no	Nitric oxide Normal open Number
N. O.	Nitric oxide Normally open
N_2O_4	Nitrogen tetroxide
NON-ESS	Non-essential
NORAD	North American Air Defense Command
NORM	Normal

NOTS	Naval Ordnance Test Station
NPSH	Not positive suction head
NRL	Naval Research Laboratory
NRZ	Non-return to zero
NRZ-C	Non-return to zero change
NSA	National Security Agency
NSC	Navigational star catalogue
NSIF	Near-Space Instrumentation Facility
NSL	Northrop Space Laboratory
NSM	Network status monitor
NSO	Normal sequence of operations
NTCSTS	Non-time critical status transmission subsystem
NV	Northrop Ventura Not valid
NWP	Naval weapons plant

O	Oxygen
O ₂	Oxygen
OA	Operational administration Output axis
OAME	Orbit attitude and maneuvering electronics
OAMS	Orbit attitude and maneuvering system
OAR	Office of Aerospace Research (AFSC)
OART	Office of Advanced Research and Technology (NASA)
OC	Orbital check Over current
OCC	Operations control center
OCDU	Optics coupling data unit
OCF	Operational control facility
OCI	Operational checkout instruction
OCO	Operation and checkout
OCP	Operational checkout procedure
OCPS	Oxygen and cabin pressure control section
OCV	Optical capture volume
OD	Operations directive Operations Director (NASA) Orbital determination
ODOP	Offset doppler tracking system Offset frequency doppler
ODU	Output display unit
OECO	Outboard engine cutoff
O/F	Oxidizer/fuel ratio (mixture)

OG	Outer gimbal
OGA	Outer gimbal angle
OGE	Operational ground equipment
OGO	Orbiting Geophysical Observatory
OH	Hydroxyl ion
OIF	Operation instrumentation facility
OIS	Operational instrumentation system
OL	Open loop
OLM	On line monitor
O/L-RC	Overload-reverse current
OLU	Outgoing line unit
OM	Orbit modification
OMNI	Omni-directional
OMSF	Office of Manned Space Flight (NASA)
OMU	Optical measuring unit
O&P	Operations and procedures
OPDAR	Optical detection and ranging
OPR	Office of primary responsibility
OPS	Oxygen purge system
OPT	Optics
OPTX	Optics
OPWG	Operational Planning Working Group
OR	Operations requirements Oxygen relief

ORD	Operational ready date Operations requirement document
ORDEAL	Orbital rate drive electronics for Apollo and LM
ORI	Operational readiness inspection
ORL	Orbital Research Laboratory
ORQA	Office of Reliability and Quality Assurance
ORT	Operational readiness test
OSC	Oscillator
OSE	Operational support equipment
OSO	Office of Space Operation Operation Support Office Orbiting Solar Observatory
OSR O	Operational Support Requirements Office
OSS	Office of Space Sciences Optics subsystem Oxygen supply simulator
OSSA	Office of Space Science and Applications (NASA)
OSWG	Optical Systems Working Group
OT	Operational test Optical tracker
OTCA	Overseas telecommunication commission (Australia)
OTDA	Office of Tracking and Data Acquisition (NASA)
OTP	Operational test procedure
OUA	Optical unit assembly
OUT	Outer Outlet Output
OUTBD	Outboard

O/V	Overvoltage
OVERBD	Overboard
OX	Oxidizer
OXID	Oxidizer

P	Pitch
PA	Pad abort Power amplifier Precision angle
PA-1	Prototype Ascent Propulsion Rig
PAA	Pan American Airways
PAB	Probability of abort
PAC	Program analyzer console
PACCT	PERT and Cost Correlation Technique
PACE	Precision analog computer equipment Prelaunch automatic checkout equipment Program automatic checkout equipment
PAD	Preflight Assurance Division Project approval document Propellant actuated device
PADAR	Passive airborne detection and ranging
PAFB	Patrick Air Force Base, Florida
PAM	Parts and materials Pulse amplitude modulation
PAO	Public Affairs Office
PAR	Parity
PAT	Patrick Air Force Base
PATH	Performance and test history
PB	Push button
PBS	Physiological biomedical system
PBX	Private Branch Exchange (telephone)

PC	Participating contractor Pitch control Program control
PCA	Polar cap absorption Precision cleaning agent Program coupler assembly
PCCP	Preliminary contract change proposal
PCM	Pitch control motor Pulse code modulation
PCME	Pulse code modulation event
PCMTE	Pulse code modulation and timing equipment
PCMTEA	Pulse code modulation and timing electronic assembly
PCN	Procedure change notices Publication change notice
PCNT	Percent
P-CORD	Prelaunch Checkout and Operations Directive
PCS	Pacific command ship Permanent change of station Portable communications system
PCT	Percent
PCU	Priority control unit Program control unit
PCVB	Pyro continuity verification box
PCW	Pulsed continuous waves
PD-1	Prototype Descent Propulsion Rig
PDA	Precision drive axis Predelivery acceptance
PDD	Premodulation processor-deep space data

PDM	Pulse duration modulation
PDP	Program Development Plan Programmed data processor
PDR	Preliminary Design Review
PDS	Power distribution section Propellant dispersion system
PDV	Premodulation processor--deep space voice
PEI	Preliminary engineering inspection
PEP	Peak envelop power
PEPP	Planetary entry parachute program
PERT	Program Evaluation Reporting Technique
PET	Production environmental test
PF	Powered flight Pulse frequency
PFM	Pulse frequency modulation
PFOD	Preflight Operations Division
PFRT	Preflight rating tests Preliminary flight rating test
PFSL	Propulsion feed system laboratory
PGA	Pendulous gyro accelerometer Pressure garment assembly
PGNCS	Primary guidance and navigation control system
PGNS	Primary guidance and navigation subsystem (LEM)
PGR	Physo-galvanic reaction
PGS	Power generator system
PH	Phase

pH	Hydrogen ion concentration
PHO	Philco Houston Operations
PHOTOMUL	Photomultiplier
PHYS	Physical
PI	Principal investigator
PIA	Preinstallation acceptance Prelaunch installation acceptance
PIAPACS	Physiological information, acquisition, processing, and control system
PICS	Program information call-up system
PIG	Pendulous integrating gyro
PIGA	Pendulous integrating gyroscope accelerometer
PIO	Public Information Office
PIP	Predicted impact point Pulse integrating pendulum
PIPA	Pulse integrating pendulum accelerometer
PIRD	Preliminary instruction requirement document Project instrumentation requirement document
PIRT	Precision infrared triangulation system
PIT	Preinstallation test
PITR	Postinstallation test requirement
PIW	Pacific injection window
PK	Peak
PKG or pkg	Package
PL	Postlanding Prelaunch

PLBK	Playback
PLCA	Propellant loading control assembly
PLIM	Postlaunch and instrumentation message
PLO	Pacific Launch Operations
PLPS	Propellant loading and pressurization system
PLSC	Postlanding sequence controller
PLSS	Personal life support system Portable life support subsystem Postlanding survival system
PM or pm	Phase modulation Post meridian Production model Prototype model Pulse modulation
PMEL	Precision Measuring Equipment Laboratory
PMM	Pulse mode multiplex
PMP	Premodulation processor Program Management Plan
PMR	Pacific Missile Range
PMRF	Pacific Missile Range Facility
PMRR	Pre-Mate Readiness Review
PMS	Physiological monitoring systems Power measurement set
PND	Premodulation processor--near earth data
PNEUM	Pneumograph
PNGS	Primary navigation and guidance subsystem
PNL	Panel

PO	Parking orbit Purchase order
POA	Plan of action
POD	Preflight Operations Division Prelaunch Operations Division
POISE	Panel on Inflight Scientific Experiments Panel on Inflight Space Experiments
POMS	Precision optical measuring system
POP	Program Operating Plan
PORT	Photo-optical recording tracker
POS or pos	Position Positive
POT	Potentiometer
PPI	Plan position indicator
PPM	Parts per million Post-pass message analysis Pulse per minute Pulse position modulation
PPP	Peak pulse power
PPO	PACE Project Office
PPS or pps	Primary propulsion system Pulses per second
PPSL	Proven parts and source list
PQGS	Propellant quantity gaging system
PQV	Production qualification verification
PR or pr	Pressure relief Procurement request Pulse rate Purchase request Puerto Rico (San Juan)

PRA	Pendulum reference axis Precession reference axis Program reader assembly
PRB	Panel Review Board
PRD	Passive ranging doppler Preretro update display Program requirements document Pulse rate divider
PRE	Pretoria, South Africa
PREAMP	Preamplifier
PRELORT	Precision long range tracking radar
PRESS	Pressure
PRF	Pulse repetition frequency
PRH	Program requirements handbook
PRI	Primary
PRIM	Primary
PRISM	Program integrated system maintenance
PRN	Pseudo-random noise
PROG	Program
PROP	Propellant Proportional
PRR	Pretest Records Review Pulse repetition rate
PRSW	Pressure switch
P/S	Parallel to serial Propulsion subsystem
PS	Power supply Pressure switch Process specification

PSA	Power and sequencing assembly Power and servo assembly
PSAAM	Power servo assembly adapter module
PSAC	President's Science Advisory Committee President's Scientific Advisory Committee
PSDF	Propulsion systems development facility
PSF or psf	Pounds per square foot
PSI or psi	Pounds per square inch
PSIA or psia	Pounds per square inch absolute
PSID or psid	Pounds per square inch differential
PSIG or psig	Pounds per square inch gauge
PSK	Phase shift keyed Phase shift keying Pulse shift keying
PSL	Present sense lines
PSO	Pad Safety Officer
PSR	Program support requirements
PSRD	Program support requirements document
PSS	Pad Safety Supervisor
PT or pt	Point Pressure test Pressure transducer
PTA	Propulsion test assembly Pulse torque assembly
PTC	Portable temperature controller
PTCR	Pad terminal connection room
PTCS	Propellant tanking control subsystem

PTG	Pulse torque generator
PTM	Proof test model
PTPS	Propellant transfer pressurization system
PTT	Push to talk
PTU	Production test unit
PTV	Parachute test vehicle Pitch thrust vector
PTVA	Propulsion test vehicle assembly
PU	Propellant utilization Propulsion unit
PUCS	Propellant utilization control system
PUG	Propellant utilization gauging
PUGS	Propellant gaging system
PV	Purge valve
PVAC	Peak volts alternating current
PVR	Precision voltage reference
PVSE	Primary vehicle system engineer
PVT	Pressure, volume, temperature
PWA	Pratt & Whitney Aircraft
PWM	Pulse width modulation
PWR	Power
PYRO	Pyrotechnic

QA	Quality assurance
QAIS	Quality assurance instruction sheet
QAL	Quality Assurance Laboratory
QAM	Quality assurance manual
QAT	Quality assurance test
QC	Quality control
QCOP	Quality control operation procedure
Q-D	Quick disconnect
QLR	Quick Look Report
QM	Qualified model
QRD	Quick release disconnect
QSL	Qualification status list
QT	Qualification test Quality test
QTM	Qualification test model
QTP	Qualification test plan Qualification test procedure
QTV	Qualification test vehicle
QUAD	Quadrant
QUAL	Qualification
QUAN	Quantity
QVVT	Quality verification vibration test

R	Range Roentgen Roll
R/A	Radar altimeter
RA	Radiation analysis
RAB	Rendezvous Analysis Branch
RAC	Receiver audio center
RACEP	Random access and correlation for extended performance
rad	Radians
RAD	Radial Radiation absorbed dosage Radiation absorbed dose Radiator
RADA	Random access discrete address
RADAR	Radio detection and ranging
RADC	Rome Air Development Center (Rome, N. Y.)
RADDAC	Radar acquisition data distribution and control
RADEM	Random access delta modulation
RADIS or radis	Radians per second
RADN	Radiation
RADOT	Real-time automatic digital optical tracker
RADVS	Radar, altimeter, and doppler velocity sensor
RAE	Range, azimuth, and elevation
RAFDO	Reentry Assistant Flight Dynamics Officer
RAMPART	Radar advanced measurements program for analysis of reentry techniques

RANDAM	Random-access, non-destructive, advanced memory
RAPCON	Radar approach control center (AF)
RASPO	Resident Apollo Spacecraft Program Office
RATS/E/	Range and/or angle tracking sensor equipment
RAYSPAN	Raytheon spectrum analyzer
R-B	Radar beacon
RBA	Radar beacon antenna
RBE	Radiation biological effectiveness
R-C	Radio command
RC	Range command Rate command Reaction control Reliability control Retrofire controller Reverse current Rotation control
RCA	Radio Corporation of America
RCC	Radio command control Radio command controller Range control center Recovery command center
RCDR	Recorder
RCE	Radio command equipment
RCNM	Reaction control numbering matrix
RCP	Recovery command post
RCS	Reaction control subsystem Readiness control system Reentry control system
RCSC	Reaction control system controller

RCV	Receive
RCVR	Receiver
RD	Received data Research and development
R&D or R/D	Research and development
RDB	Radar data buffer
RDMU	Range-drift measuring unit Reticle display measurement unit
RDP	Radiation distribution plot
RDS	Receiver-decoder selector
RDT	Radar data transmitter
REC	Recife, Brazil Recovery
RECO	Rough engine cutoff
RECOV	Recovery
RECP	Request for engineering change proposal
RECT	Rectifier
REF	Reference
REG	Regulated Regulator
REGEN	Regenerator
REGN	Regenerator
REL	Release
REM	Roentgen equivalent man
REND	Rendezvous

REP	Reliability engineering procedure Rendezvous evaluation pod
REQD	Required
RES	Resolver
RET	Return
REV	Reverse
RF	Radio frequency Recovery forces
RFA	Request for alteration
RFBA	Request for budget adjustment
RFC	Request for change
RFI	Radio frequency interference
RFP	Request for procurement Request for proposal
RFQ	Request for quote
RFR	Request for review
RFS	Radio frequency system
RFWAR	Requirements for work and resources
RG	Rate gyro
RGA	Rate gyro assembly
RGAVS	Range--Gemini to Agena visual line of sight range
RGP	Rate gyro package Rate gyro package position indicator
RGS	Radio guidance system Rate gyro system
RH	Right hand

RHC	Rotation hand control
RHCP	Right-handed circular polarization
RHEB	Right-hand equipment bay
RHFEB	Right-hand forward equipment bay
RHI	Range-height indicator
RICS	Remote instrumentation control system
RID	Review item disposition
RIME	Radio-inertial measuring equipment Radio inertial monitoring equipment
RIOS	Receiving inspection operation sheet
RIPCO	Receiving inspection and preparation for checkout
RIPS	Radar impact prediction system
RJD	Reaction jet driver
RJDS	Reaction jet drivers
RJ/EC	Reaction jet and engine control
RKV	<u>Rose Knot Victor</u>
RLY	Relay
RM	Rendezvous maneuver
RMD	Reaction Motors Division (Dover, N.J.)
RMS or rms	Root mean square
RNG	Range
RNDZ	Rendezvous
RNW Y	Runaway
RO	Recovery operations Reference oscillator

ROD	Rate of descent
ROM	Rough order of magnitude
ROT	Rotation
ROTI	Recording optical tracking instrument
ROTR	Receive only typing reperforator
RP-1	Fuel (kerosene) Rocket propellant No. 1 (kerosene)
RPM or rpm	Revolutions per minute
R&QA	Reliability and quality assurance
R&R	Rendezvous and recovery
RR	Rendezvous radar Respiration rate Retrorocket
R&R Dot	Range and range rate
RRE	Rendezvous radar equipment
RRR	Revision review record
RRS	Restraint release system
RR/T or RRT	Rendezvous radar transponder
RR/T	Rendezvous radar and transponder
RS	Remote station
R/S ₂ or r/s ₂	Radius per second squared
RSC	Range safety control Rate systems console
RSCIE	Remote station communication interface equipment
RSCS	Radar system checkout sets Rate stabilization and control subsystem

RSDP	Remote site data processor
RSDS	Range safety destruct system
RS/E	Range sensor/equipment
RSI	Roll stability indicator
RSJ	Radio station, Japan
RSO	Range Safety Officer
RSOB	Range Safety Observer
RSS	Reactant supply system Root sum square
RSTC	Radar system test console
RST/S	Range simulation test/set
RSU	Range simulation unit
RSVE	Resolver
R/T	Real time
R-T	Receiver-transmitter Reperforator transmitter unit
RT	Reliability test Resistance thermometers Retro table
RTC	Real-time command Real-time computer
RTCC	Real-time computation center Real-time computer complex Real-time computing complex
RTDS	Real-time data system
RTG	Radioisotope thermoelectric generator
RTK	Range tracker (ship)

RTM	Real-time message
RTS	Real-time scan unit
RTSS	Real-time simulation system
RTTV	Real-time television
RTU	Recovery task unit
RTV	Reentry test vehicle Room temperature vulcanizing
RUPT	Interrupt
RV	Reentry vehicle
RVR	Rendezvous radar
RX	Receiver
R&Z	Range and zero
RZ	Return to zero

SAT	System assembly and test
SATCOM	Army Satellite Communications Agency
SATCON	Satellite Control Center
SATIF	Scientific and Technical Information Facility
SAVS	Status and verification system
S-band	1500-5200 mc
SBASI	Single bridge ASI (Apollo Standard Initiator)
SBUE	Switch backup entry
S/C	Spacecraft
SC	Signal conditioner Spacecraft
S&C	Stabilization and control
SCA	Schedule change authorization Signal conditioner assembly Simulation control area Spacecraft adapter
SCAMA	Switching conference and monitoring arrangement
SCARF	Special Committee on the Adequacy of Range Facilities
SCAT	Space communications and tracking
SCATS	Simulation, checkout, and training system
SCD	Scheduled completion date Specification control drawing Subsystem command decoder
SCE	Signal conditioning equipment
SCEA	Signal conditioner equipment assembly Signal conditioning electronics assembly

SCF	Sequence compatibility firing Spacecraft checkout facility
SCFM or scfm	Standard cubic feet per minute
S/C FRR	Spacecraft flight readiness review
SCG	Seismocardiogram
SCHe	Supercritical helium
SCI	Scientific
SCIP	Self-contained instrumentation package
SCN	Specification change notice
SCO	Spacecraft operation Spacecraft Operations Office Subcarrier oscillator
SCORE	Satellite computer-operated readiness equipment
SCPA	SCS control panel
SCR	Signal conditioner Silicon-controlled rectifier Strip chart recorder
SCRAPE	Program to lighten the LEM structure
SCS	Sequence control system Spacecraft control system Stabilization and control subsystem
SCSCP	Sequence control system control panel
SCT	Scanning telescope Serial clock transmitter Spacecraft crew trainer
S/CTC	Spacecraft test conductor Spacecraft test crew
SCTE	Spacecraft central timing equipment

SCU	Signal conditioning unit
SD	Send data Subsystem command decoder
SDA	Sextant drive axis Shaft drive axis
SDARS	Strapped-down all-attitude reference system
SDBGS	Strapped-down backup guidance system
SDC	Space digital computer System Development Corp.
SDCS	Simulation, checkout and training--DCS
SDD	Subchannel data distributor
SDF	Single degree of freedom
SDI	Selective dissemination of information
SDP	Subsystem Development Plan
SDS	Simulation data subsystem Simulation design section Splash detection system
S-E	Sequence of events
SE	Systems engineer
SEC or sec	Second Secondary
SECO	S-IVB engine cutoff Sustainer engine cutoff
SECOR/DME	Sequential collation of range
SECS	Sequential events control subsystem
SECS SDP	Sequential Events Control Subsystem Development Plan
SECT	Sector

SEDD	Systems Evaluation and Development Division
SEDR	Systems Engineering Department Report
SEL	Selector
SENS	Sensitivity Sensor
SEP	Separation Space electronic package Spacecraft electronic package Standard electronic package
SEQ	Sequencer Scientific equipment
SESL	Space Environment Simulation Laboratory
SE/TD	Systems engineering and technical direction
SETS	Solar energy thermionic and conversion system
SEXT	Sextant
SFA	Sun finder assembly
SFC	Specific fuel consumption
SFOF	Space Flight Operations Facility
SFOP	Space Flight Operations Plan
SFT ₂ or sft ₂	Slug-feet squared
SG	Signal generator Stimulus generator
SGC	Space General Corp.
SGLS	Space-to-ground link subsystem
SHA	Sidereal hour angle
SHF	Super high frequency

SHFT	Shaft
SHG	Steerable high gain
SHL	Shell
SHLD	Shield
SHORAN	Short range navigation
S-I	Saturn I Sphere of influence
SI	Systems integration
SLA	Systems integration area
SIC	Simulated input control
S&ID	Space and Information Systems Division, NAA
SIDE	Suprathermal ion detector
SIDL	System identification data list
SIG	Signal
SIMCHE	Simulation and checkout equipment
SIN	Sine
SINS	Stellar-inertial navigation system
SIS	Scientific instrumentation system Simulation interface subsystem
SITE	Spacecraft instrumentation test equipment
SL	Switch light
SLA	Service module LEM adapter Spacecraft-launch vehicle adapter Spacecraft to lunar excursion module adapter

SLOS	Star line of sight
SLR	Radar slant range
SLU	Santa Lucia
SLUG	Slugs
SLV	Saturn launch vehicle Space launch vehicle
SM	Service module Stable member
SMCC	Simulation monitor and control console
SMCU	Simulated monitor and control unit
SMD	Structures and Mechanics Division Systems measuring device
SMDF	SCATS main distribution frame
SMI	Service module insert
SMJC	Service module jettison controller
SML	Support material list
SMOC	Simulation mission operation computer
SMP	Summary maneuver plan
SMR	Small missile range Supply-maintainability-recoverability
SM RCS	Service module reaction control subsystem
SMRD	Spin motor rotation detector
SMS	Standard modular system
SMAS	Signal Missile Support Agency
SMSC	Service module sequence controller

SMT	Small missile telecamera
S/N	Serial number Signal to noise ratio
SNR	Signal to noise ratio
SNSR	Sensor
SOC	Satellite Operations Control Center Simulation operation computer
SOFAR	Sound fixing and ranging system
SOL	Solenoid
SOM	Start of message
SOP	Standard operating procedure
SORTI	Star oriented real-time tracking instrument
SORTIS	Star oriented real-time instrumentation system
SOS	Share operating system Space ordnance system
SOTIM	Sonic observation of trajectory and impact of missiles
SOV	Shutoff valve
SOW	Start of word
S/P	Serial to parallel
SP	Static pressure
SPA	S-band power amplifier Servo power assembly
SPACE	Spacecraft prelaunch automatic checkout equipment
SPACON	Space communications network
SPADATS	Space detection and tracking system

SPAF	Simulation processor and formatter
SPAN	Solar Particle Alert Network
SPANDAR	Space range radar
SPASUR	Space surveillance system
SPC	Stored program command
SPD	Stored program decommutator
SPE	Service propulsion engine
SPEC	Specification
SPG	Single point-ground
SPL	Sound pressure level
SPMX	Speed-o-max pen recorder
SPO	Systems Project Office
SPR	Solid propellant rocket
SPS or sps	Samples per second Secondary propulsion system Service propulsion subsystem
SPU	Service propulsion unit
SQ or sq	Square
SQW	Square wave
SRA	Spin reference axis
SRC	Sample return container
SRCS	Stabilization and reaction control subsystems
SRO	Supervisor range operations
SRP	Seat reference point

SRS	Simulated remote site
SRSCC	Simulated remote site control console
SRSS	Simulated remote site subsystem
S/S	Samples per second Sub/system
SS	Station selector
SSA	Sextant shaft angle Space suit assembly
SSB	Single sideband
SSC	Space suit communications
SSD	Space Systems Division (USAF)
SSDF	Space Science Development Facility (NAA)
SSE	Spacecraft simulation equipment
SSECO	Second stage engine cutoff
SSET	Surveyor Scientific Evaluation Teams
SSI	San Salvador Island Second stage ignition
SSL	Store sense lines
SSO	Spacecraft Systems Officer
SSR	Staff Support Room
SSRD	Spacecraft station requirement date
SST	Simulated structural test Spacecraft systems test
SSTO	Second stage tailoff
STA	Sextant trunnion angle Station

STAB	Stability
STADAN	Satellite Tracking and Data Acquisition Net Space Tracking and Data Acquisition Network
STAR	Scientific and Technical Aerospace Reports
STAT	Status
STB	Systems Test Branch
STBY	Standby
STC	Sacramento Test Center Spacecraft test conductor System test complex
STD	Spacecraft Technology Division
STDA	Sextant trunnion drive axis
STE	Spacecraft test engineer Special test equipment
STEA	System test equipment assembly
STG	Space Task Group
STGR	Stringer
STIM	Stimulus
STL	Space Technology Laboratories, Inc.
STM	Service test model
STOR	Storage
STRUCT	Structure
STU	Special test unit Special test units (GSE) Static test unit
SUM	Summary Summing

SUPT	Support
SURF	Surface
SV	Space vehicle
S-V	Saturn V
S/V FRR	Space Vehicle Flight Readiness Review
SVSE	Support vehicle systems engineer
SVT	System verification tests
S/W	Statement of work
SW	Switch
SWIP	Super Weight Improvement Program
SWR	Standing wave ratio
SXT	Sextant Sextant telescope
SYNC	Synchronization Synchronous
SYS	System

t	Elapsed time
T	Time
TA	Test article Timer assembly Trajectory analysis Translation acceleration Travel authorization Trunnion angle (sextant)
TAC	Transmitter-audio center
TACH	Tachometer
TAC-NAV	Tactical-navigation display
TAIR	Test and inspection record
TANG	Tangential
TAR	Test agency report
TARE	Telemetry automatic reduction equipment
TB	Talkback indicator
TBD	To be determined
TC	Test conductor Thermocouple Thrust chamber Time to compute (IBM) Transfer control Translation control
T/C	Telecommunications subsystem Test controller Transmitting and command
TCA	Thrust chamber assembly Thrust controller assembly Translation controller assembly
TCD	Test completion data

TCFV	Thrust chamber fuel valve
TCM	Temperature control model Tracking camera mount
TCOV	Thrust chamber oxidizer valve
TCS	Temperature control system
TCSC	Trainer control and simulation computer
TCSTS	Time critical status transmission subsystem
TCTO	Time compliance technical order
TCTR	Time compliance technical requirements
TD	Technical directive Time delay Touchdown
T/D	Time delay
T&D	Tracking and data Transposition and docking
TDA	Target docking adapter Trunnion drive axis (sextant)
TDD	Timing data distribution
TDDL	Time division data link
TDIO	Timing and data input/output
TDM	Telemetric data monitor Time division multiplex
TDP	Tracking data processor
TDR	Test discrepancy report (NAA)
TDS	Trajectory data system
TDWD	Transonic dynamic wind tunnel (LRC)

TDY	Temporary duty
T/E	Telemetry event
TE	Timing electronics Transearch
TEA	Transearch abort
TEC	Transearch coast
TEI	Transearch injection
TELEDAC	Telemetry pulse data decommutator
TEM	Terminal energy management display Transearch midcourse
TEMP	Temperature
TEO	Transearch orbit
TERM	Termination
TET	Transearch trajectory
TEX	Corpus Christi, Tex.
TF	Test facility
TFL	Time from launch
TFR	Trouble and failure report
TG	Terminal guidance Torque generator
TGS	Telemetry ground station
TH	Theta
THC	Translation hand control
THERM	Thermal
TI	Texas Instruments, Inc. Timing interval

TIDC	Technical Information Data Center
TIE	Technical integration and evaluation
TIGN	Time of ignition
TIM	Tracking instrument mount
TIROS	Television infrared observation satellite
TJ	Tower jettison
TJM	Tower jettison motor
TL	Translunar
TLC	Translunar coast
TLF	Terminal landing facility
TLG	Low gate target
TLI	Translunar injection
TLM	Telemetry
TLO	Translunar orbit
TLT	Translunar trajectory
TLV	Test launch vehicle
TLW	Elapsed time in launch window
T/M	Telemetry
TM	Technical manual Telemetry Test model
TMC	The Marquardt Company
TMG	Thermal meteoroid garment Timing
TMS	Telemetry multiplex system

TN	Technical note
TO	Technical order
T&O	Test and operation
TOI	Transfer orbit insertion
TORF	Time of retrofire end of mission
TORQ	Torque
TP	Terminal phase Test point Test procedure
TPA	Test Preparation Area
TPAC	Telescope precision angle counter
TPE	Test program engineer (NAA)
TPI	Terminal phase initiation
TPR	Telescopic photographic recorder
TPS	Test preparation sheet Thermal protective subsystem
T/R	Transmit-receive Travel request
TR	Tape recorder Test request Time to retrofire Tracking
TRAC	Total records access control (NAA)
TRAC(E)	Tracking and communication (extra-terrestrial)
TRANS	Translation
TRC	Test Review Coordinators
TRI	Trinidad

TRIDOP	Triangulation doppler
TRK	Track
TRNFR	Transfer
TRS	Time reference system Time reference system (spacecraft)
TRUMP	Target radiation measurement program
TRUN	Trunnion
TRW	Thompson Ramo Wooldridge Inc.
TSB	Technical support building
TSE	Test support equipment
TSS	Transmit system
TSSS	Test site, storage sites
TSU	Time standard unit
TTC	Telemetry tracking and command
TTCA	Thrust and translation controller assembly
TTE	Time to event
TTG	Time to go
TTM	Thermal test model
TTR	Target tracking radar
TTY	Teletype
TTY-FD	Full duplex teletype
T/V	Thermal vacuum
TV	Television Thrust vector

TVA	Thrust vector alignment
TVC	Thrust vector control
TVCS	Thrust vector control system
TVD	Vertical descent target
TVSA	Thrust vector position servo amplifier
TVSM	Television systems monitor
T/W	Thrust-to-weight ratio
TWR	Tower
TWT	Traveling wave tube
TWX	Telegram
TX	Time to reset Transmitter
TXR	Transmit-receive

UA	Urinalysis
UAC	United Aircraft Corporation
UAL	United Aircraft Laboratories
UAMP	Microampere
UAW	United Auto Workers Union
UCD	Urine collection device
UCR	Unsatisfactory condition report
UCSD	Universal communications switching device
UCT	Urine collection and transfer
UDL	Up-data link
UDMH	Unsymmetrical dimethyl hydrazine
UDOP	Ultra-high frequency doppler
UDRL	Up-down, right-left
UFS	Unified frequency system
UHF	Ultra high frequency
UI/IN or ui/in	Microinches per inch
UK	United Kingdom Unknown
UMB	Umbilical
UNPS	Universal power supply (NAA)
UPTL	Up-link telemetry
UNREG	Unregulated
UR	Unsatisfactory report Uprange

US	Microseconds
USAF	United States Air Force
USAS	United States Army Ship
USASSA	United States Army Signal Supply Agency
USB	Unified S-band
USB E	Unified S-band equipment
USCTP	Unified S-band compatibility test program
USGS	United States Geological Survey
USVMS	Urine system volume measuring system
USWB	United States Weather Bureau
U/V	Undervoltage
UV-IR	Ultra violet-infrared
UW	Microwatts

V	Velocity Voice Volt
V-A	Verlort-azimuth
VAB	Vertical Assembly Building
VAC	Volts alternating current
vac	Volts, alternating current
Vc	Circular velocity
VC	Voice coordination Voice frequency channel
VCC	Voice control center
VCD	Velocity change display
VCI	Velocity change indicator
VCO	Voice controlled oscillator Voltage controlled oscillation Voltage controlled oscillator
VCXO	Voltage controlled crystal oscillator
VDC	Volts direct current
V/DELTA	Velocity increment
VE	Escape velocity
V-E	Verlort-elevation
VECO	Vernier engine cutoff
VEFCO	Vertical functional checkout
VEH	Vehicle
VEL	Velocity
VERLORT	Very long range tracking radar

VERNITRAC	Vernier tracking by auto correlation
VERT	Vertical
VF	Voice frequency
VFO	Variable frequency oscillator
VGP	Vehicle ground point
VHF	Very high frequency
VHF/AM	Very high frequency amplitude modulation Very high frequency/audio modulated
VHF/FM	Very high frequency frequency modulation
VHFRA	Very high frequency recovery antenna
VHFRAB	Very high frequency recovery antenna backup
VHFRB	Very high frequency recovery beacon
VI	Insertion velocity
VIB	Vibration
VIC	Vacuum Instrument Corporation
VIS	Visual instrumentation subsystem
VLV	Vertical launch facility Very low frequency
VLV	Valve
VM	Measured velocity Voltmeter
VMS	Velocity meter subsystem
VO	Initial velocity
VOCAMP	Voice control and monitor position
VOL	Volume

VOLT	Voltage
VOM	Volt-ohm-millimeter
V-OT&R	Verlort-on track and range
VOX	Voice operated switch relay
VPK	Volts peak
vpp	Volts, peak to peak
VR	Vendor requirement Voltage regulator
V-R	Verlort-range
VRB	Very high frequency recovery beacon
VSE	Vehicle systems engineer
VSM	Velocity measuring system
VSMC	Video switching matrix control
VSO	Vehicle system officer Very stable oscillator
VSSA	Vehicle systems status advisor
V-S-V	Vehicle-surface-vehicle
VSWR	Voltage standing wave ratio
VT	Vibration test
VTF	Vertical test facility
VTOL	Vertical takeoff and landing
VTs	Vertical test stand
VTVM	Vacuum tube voltmeter
VY	Yaw velocity

W or w	Watts
WADC	Wright Air Development Command
WAR	Work around requirement (NAA)
WAT	Watertown (ship)
WB	Weather Bureau Wide band
WBD	Wide band data
WBDL	Wide band data link
WBS	Work breakdown structure
WDL	Western Development Laboratories (Philco)
WECO	Western Electric Company
W/G	Water-glycol
WIND	Weather indicator and display system
WMS	Waste management system Water measurement section
WOM	Woomera, Australia
WOO	Western Operations Office (NASA)
WPAFB	Wright-Patterson Air Force Base
WPM or wpm	Words per minute
WPS or wps	Words per second
WRF	Work request form
WS	Wallops Island Station
WSMR	White Sands Missile Range
WSO	White Sands Operation

WSTF White Sands Test Facility

WTR Western Test Range

Xc	Command module station
Xs	Service module station
XCUR	Transceiver
XDUCER	Transducer
XFMR	Transformer
XMIT	Transmit
XMTR	Transmitter
XPONDER	Transponder
XTAL	Crystal
XTNL CR	External counter
XUV	X-ray and extreme ultraviolet
XY	Telephone exchange (Cape Kennedy)

Y Yaw

YTV Yaw thrust vector

Z	Vertical, Z station (spacecraft)
ZAR	Nike Zeus acquisition radar
ZI	Zone of interior (continental United States)
ZN or zn	Zinc
ZULU	Greenwich mean time
ZZB	Zanzibar, Africa

ΔP	Differential pressure
ΔV	Differential velocity
ϕ	Phase