

Acronyms and Abbreviations

1Ah	1-Ampere-Hour	CMUS	Command Module Uprighting System
ABET	Accrediting Body for Engineering and Technology	CO ₂	carbon dioxide
ABF	Anthropometry and Biomechanics Facility	COPV	composite overwrapped pressure vessels
AE	acoustic emission	COTS	Commercial Orbital Transportation Services
AFT	Advanced Food Technology	CPAS	Capsule Parachute Assembly System
Al	aluminum	CPVWG	Composite Pressure Vessel Working Group
AIAA	American Institute of Aeronautics and Astronautics	CSPE	Colorimetric Solid Phase Extraction
AKGA	alpha-ketoglutaric acid	CSRTS	Carbon Stress Rupture Test System
AMS	Asynchronous Message Service	CTS™	composite thermal switch
ANSI	American National Standards Institute	CWQMK	Colorimetric Water Quality Monitoring Kit
ANTARES	Advanced NASA Technology Architecture for Exploration Studies	DACS	Divert and Attitude Control System
AOA	Angle of Arrival	dB	decibels
APAS	Androgynous Peripheral Assembly System	DRATS	Desert Research and Technology Studies
ARES	Astromaterials Research and Exploration Science	DTN	Delay Tolerant Networking
ASHRAE	American Society of Heating, Refrigerating and Air-conditioning Engineers	DTO	Development Test Objective
ASTM	American Society for Testing and Materials	DWC	Digital Wave Corp.
BLSS	Bioregenerative Life Support Systems	EC	eddy current
BLT	boundary layer transition	ECLSS	Environmental Control and Life Support System
BNL	Brookhaven National Laboratory	EDOCS	Expeditionary Deployable Oxygen Concentration System
BOB	Bulk Overwrap Bag	EEGS	Emergency Egress System
BRINE	brine residual in-containment	EELS	emergency egress lighting strips
C2V2	Common Communication for Visiting Vehicle	ETP	Electrolytic Tough Pitch
CAD	Computer Aided Drawing	eV	electron volt
CAI	calcium-, aluminum-rich inclusion	EVA	extravehicular activity
CASEO	Cabin Air Separator for Extravehicular Activity Oxygen	FCI/OpsHab	Flight Crew Integration Operational Habitability
CCD	cursor control device	FEA	finite element analysis
CCSDS	Consultative Committee for Space Data Standards	FeCrNi	iron-chromium-nickel
CEV	Crew Exploration Vehicle	FFP	flight production processes
C/Ep	carbon-epoxy	FFT	Fast Fourier transform
CFD	Computational Fluid Dynamics	FGB	functional cargo block
CiPAIR	Curriculum Improvements Partnership Award for the Integration of Research	FLIR	forward-looking infrared
CMG	Control Moment Gyroscope	FLUKA	FLUktuierende KASKade
		FOM	Figure of Merit
		FP	floating potential
		FPMU	Floating Potential Measurement Unit
		Fr	Felicity ratio

FRCS	Forward Reaction Control System	ISS	International Space Station
FY	Fiscal Year	IT	Information Technology
GPS	Global Positioning System	Jenkins	Harriet B. Jenkins Pre-doctoral Fellowship Program
GRAF	Graphics Research and Analysis Facility	JSC	Johnson Space Center
GRC	Glenn Research Center	kHz	kilohertz
H ₂ O	water	kPa	kilopascals
HCD	human-centered design	KSC	Kennedy Space Center
HDU	Habitat Demonstration Unit	ksi	kilopound per square inch
HESTEC	Hispanic Engineering, Science, and Technology	LED	light-emitting diode
HIMS	Habitat Particle Impact Monitoring System	LEED	Leadership in Energy and Environmental Design
HITL	human-in-the-loop	LEO	low-Earth orbit
HoFi	hollow-fiber	LER	Lunar Electric Rover
HPH	high purity hydrazine	LET	linear energy transfer
HPOGA	high-pressure oxygen generator assembly	LETF	Lighting Evaluation and Test Facility
HRA	Human Reliability Analysis	LGH	Lunar Greenhouse
HRP	Human Research Program	LIDAR	Light Detection and Ranging
HSWL	Hamilton Sundstrand (Windsor Locks)	LIDS	Low Impact Docking System
HVAC	Heating, Ventilation, and Air Conditioning	Li-ion	lithium-ion
Hz	Hertz	LNG	liquefied natural gas
IAA	International Academy of Astronautics	LONESTAR	Low-earth Orbiting Navigation Experiment for Spacecraft Testing Autonomous Rendezvous
I&A	integration & test	LOX	liquid oxygen
ICB	Inventions and Contributions Board	LS	laser shearography
IDD	Interface Definition Document	mAh	milliampere-hours
IDSS	International Docking System Standard	MCC	Mission Control Center
IEC	International Electrotechnical Commission	MCC-21	Mission Control Center 21st Century
IEEE	Institute of Electrical and Electronics Engineers	MCCS	Mission Control Center System
ILH	intermittent load hold	MCCx	Mission Control Center Experimental
iLIDS	International Low Impact Docking System	MCT	Mission Control Technologies
IOM	Institute of Medicine	MER	Mission Evaluation Room
IP	Internet Protocol	MHz	megahertz
IPTV	Internet Protocol Television	MIRA	Motion Imagery and Robotics Application
IR	ionizing radiation	mL/min	milliliters per minute
ISA	International Society of Automation	mMCC	mobile Mission Control Center
ISAL	Image Science and Analysis Laboratory	MMH	monomethylhydrazine
ISO	International Standards Organization	MMOD	micrometeoroid and orbital debris
ISP	Information Sharing Protocol		

Acronyms and Abbreviations

continued

MOD	Mission Operations Directorate	OSTPV	Onboard Short-Term Plan Viewer
MOS	Mission Operations System	P6	Port 6
MOX	liquid methane/liquid oxygen	PC	personal computer
MPRES	Multi-Platform Renewable Energy System	PCA	primer chamber assembly
mpy	mil per year	PCU	plasma contactor unit
MSL	Mars Science Laboratory	PECOS	Predictive Engineering and Computational Sciences
MSP	Minority University Research and Education Program (MUREP) Small Projects	PEM	Pressurized Excursion Module
MSTB	Mission Systems Test Bed	PICA	phenolic impregnated carbon ablator
MUREP	Minority University Research and Education Program	PLATO	Power Planning and Analysis Tool
MUST	Motivating Undergraduates in Science and Technology	PLSS	Portable Life Support System
mV	millivolts	PPI	pores per linear inch
N	nitrogen	PSAAP	Predictive Science Academic Alliance Program
NanoSIMS	nanometer-scale, secondary ion mass spectrometry	PSI	Physical Sciences Inc.
NBIC	National Board Inspection Code	psi	pounds per square inch
NBL	Nutritional Biochemistry Laboratory	psig	pounds per square inch gauge
NDE	nondestructive evaluation	PSTI	Pre-Service Teacher Institute
Nd: YAG	neodymium: yttrium-aluminum-garnet	PTFE	polytetrafluoroethylene
N_e	plasma density	PV	photovoltaic
NESC	NASA Engineering & Safety Center	PWB	printed wiring board
NHHPC	NASA Human Health and Performance Center	REMPI	Resonance Enhanced Multi-Photon Ionization
Ni	nickel	RF	radio frequency
NICE	NASA Innovations in Climate Education	RFTA	Recycle Filter Tank Assembly
nm	nanometer	RIA	Rich Internet Application
nmol/L	nanomoles per liter	RLLD	Robotic Lunar Lander Development
NNSA	National Nuclear Security Administration	RPL	Rapid Prototyping Lab
NNWG	NASA Nondestructive Evaluation Working Group	SA	spectrum analyzer
ns	nanosecond	SAA	Space Act Agreement
NSBRI	National Space Biomedical Research Institute	SAW	solar array wings
NSI	NASA Standard Initiator	SBIR	Small Business Innovative Research
NSTI	NASA Science and Technology Institute	SDTO	Station Development Test Objective
NTO	nitrogen tetroxide	SEE	single event effect
O	oxygen	SEED	Systems Engineering Education Discovery
OCA	Oxygen Compatibility Assessment	SEU	single event upset
OISP	open innovation service provider	SFRF	Space Food Research Facility
		SFSL	Space Food Systems Laboratory
		SG	signal generator
		SHM	structural health monitoring

SIMS	secondary ion mass spectrometry	URC	University Research Center
SLSD	Space Life Sciences Directorate	USAF	United States Air Force
SM	Service Module	USA FCE	United Space Alliance Flight Crew Equipment
SMART/L	Spacecraft Morphing to Auto Rotation Targeted Landing	USRA	Universities Space Research Association
SM&C	Spacecraft Monitor and Control	USRP	Undergraduate Student Research Project
SoC	states of charge	UT	ultrasonic testing
SOPDO	Strategic Opportunities and Partnerships Development Office	UWB	Ultra-Wideband
SQL	Structured Query Language	3-D	three-dimensional
SRAM	static random access memory	TPS	thermal protection system
SRP	Supersonic Retropropulsion	2-D	two-dimensional
SS	stainless steel	UV	ultraviolet
SSI	Student Stories Initiative	VNA	vector network analyzer
SSOT	Strategic Science Operations Team	VNS	Vision Navigation Sensor
STA-54	Shuttle Tile Ablator 54	VoIP	Voice over Internet Protocol
STEM	science, technology, engineering, and math	VR	valve repair
STOMP	Student Teacher Outreach Mentorship Program	VRAM	Variable Bragg Peak Method
STORRM	Sensor Test for Orion Relative-Navigation Risk Mitigation	Wh/kg	Watt-hours per kilogram
STS	Space Transportation System	WSN	wireless sensor network
STTR	Small Business Technology Transfer	WSTF	White Sands Test Facility
SWME	suit water membrane evaporators	XRF	x-ray fluorescence
TCS	Trajectory Control Sensor		
TCUP	Tribal Colleges and Universities Project		
TDOA	Time-Difference-of-Arrival		
T_e	electron		
TNT	trinitrotoluene		
TSOT	Tactical Science Operations Team		
UA	University of Arizona		
UCLA	University of California Los Angeles		
UL	Underwriter's Laboratory		
μ -L2MS	unique microprobe two-step laser mass spectrometer		
μ m	micrometers		
UNIMET	United Negro College Fund-Special Programs Mission Enabling Technology		
ULF	Utilization and Logistics Flight		
UPW	ultrapure water		

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