
List of Acronyms

AAS	American Astronomical Society
ABBC	Analog Base Band Converter
AC	(IVS) Analysis Center
ACF	AutoCorrelation Function
ACU	Antenna Control Unit
ADB	Analog to Digital Board
AES	Advanced Engineering Services Co., Ltd (Japan)
AGN	Active Galactic Nuclei
AGU	American Geophysical Union
AO	Astronomical Object
APEX	Atacama Pathfinder EXperiment
APSG	Asia-Pacific Space Geodynamics program
APT	Asia Pacific Telescope
ASI	Agenzia Spaziale Italiana (Italy)
ATM	Asynchronous Transfer Mode
ATNF	Australia Telescope National Facility (Australia)
AUT	Auckland University of Technology (New Zealand)
BADW	Bavarian Academy of Sciences (Germany)
BBC	Base Band Converter
BBD	Broadband Delay
BIPM	Bureau International des Poids et Mesures (France)
BKG	Bundesamt für Kartographie und Geodäsie (Germany)
BPE	Bernese Processing Engine
BSBH	Binary Systems of supermassive Black Holes
BVID	Bordeaux VLBI Image Database
BWG	Beam WaveGuide
BdRAO	Badary Radio Astronomical Observatory (Russia)
CARAVAN	Compact Antenna of Radio Astronomy for VLBI Adapted Network (Japan)
CAS	Chinese Academy of Sciences (China)
CAY	Centro Astronómico de Yebes (Spain)
CC	(IVS) Coordinating Center
CDAS	Chinese Digital Data Acquisition System (China)
CDDIS	Crustal Dynamics Data Information System (USA)
CDP	Crustal Dynamics Project
CDS	Centre de Données astronomiques de Strasbourg (France)
CE	Conformité Européene
CGS	Council for GeoScience (South Africa)
CGS	Centro di Geodesia Spaziale (Italy)
CIB	Correlator Interface Board
CNES	Centre National d'Etudes Spatiales (France)
CNIG	Centro Nacional de Información Geográfica (Spain)
CNRS	Centre National de la Recherche Scientifique (France)

CNS	Communication, Navigation and Surveillance systems, Inc. (USA)
CODA	Correlator Output Data Analyzer
CORE	Continuous Observations of the Rotation of the Earth
CORS	Continuously Operating Reference Stations
COSMIC	Constellation Observing System for Meteorology, Ionosphere and Climate
COSMO-SkyMed	COntellation of small Satellites for the Mediterranean basin Observation
CP	Circularly Polarized
CRAAE	Centro de Rádio Astronomia e Aplicações Espaciais (Brazil)
CRAAM	Centro de Rádio Astronomia e Astrofísica Mackenzie (Brazil)
CRESTech	Centre for Research in Earth and Space Technology (Canada)
CRF	Celestial Reference Frame
CRL	Communications Research Laboratory (now NICT) (Japan)
CSA	Canadian Space Agency (Canada)
CSIR	Council for Scientific and Industrial Research (South Africa)
CSIRO	Commonwealth Scientific and Industrial Research Organization (Australia)
CTI	Communication Techniques, Inc. (USA)
CVN	Chinese VLBI Network
CrAO	Crimean Astrophysical Observatory (Ukraine)
DAR	Data Acquisition Rack
DAS	Data Acquisition System
DBBC	Digital Base Band Converter
DBE	Digital BackEnd
DFT	Discrete Fourier Transform
DGFI	Deutsches Geodätisches Forschungsinstitut (Germany)
DHC	de Havilland Canada (Canada)
DLR	Deutsches Zentrum für Luft- und Raumfahrt (German Aerospace Center)
DMTD	Dual Mixer Time Difference
DOM	Data Output Module
DOR	Differenced One-way Range
DORIS	Doppler Orbitography and Radiopositioning Integrated by Satellite
DR	Dichroic Reflector
DRAO	Dominion Radio Astrophysical Observatory (Canada)
DREN	Defense Research and Engineering Network
DSN	Deep Space Network
DSP	Digital Signal Processor
DSS	Deep Space Station
DST	Department of Science and Technology (South Africa)
DeltaDOR	Delta Differenced One-way Range
EDM	Electronic Distance Measurement
EGU	European Geosciences Union
EIRP	Effective Isotropic Radiated Power
ENVISAT	ENVironmental SATellite
EOP	Earth Orientation Parameters
ESA	European Space Agency

ETS-Lindgren	EMC Test Systems-Lindgren (USA)
EUREF	EUropean REference Frame
EVGA	European VLBI for Geodesy and Astrometry
EVLA	Expanded Very Large Array
EVN	European VLBI Network
EXPReS	Express Production Real-time e-VLBI Service
FCN	Free Core Nutation
FES2004	Finite Element Solution 2004
FESG	Forschungseinrichtung Satellitengeodäsie/Technical University of Munich (Germany)
FFI	Forsvarets ForskningsInstitutt (Norwegian Defence Research Establishment) (Norway)
FILA10G	FIRst LAsT
FRFF	Future Radio Frequencies and Feeds
FS	Field System
FTP	File Transfer Protocol
FWF	Fonds zur Förderung der wissenschaftlichen Forschung (Austrian Science Fund)
GA	Geoscience Australia (Australia)
GAPE	Great Alaska and Pacific Experiment
GARNET	GSI Advanced Radiotelescope NETwork (Japan)
GARS	German Antarctic Receiving Station (Germany)
GEMD	Geospatial and Earth Monitoring Division (Australia)
GEX	Giga-bit series VLBI EXperiment
GFZ	GeoForschungsZentrum (Germany)
GGAO	Goddard Geophysical and Astronomical Observatory (USA)
GGOS	Global Geodetic Observing System
GGP	Global Geodynamics Project
GISTM	GPS Ionospheric Scintillation and TEC Monitor
GLONASS	GLOBAL Navigation Satellite System (Russia)
GLORIA	GLOBAL Radio Interferometry Analysis
GNS Science	Geological and Nuclear Sciences Research Institute (New Zealand)
GNSS	Global Navigation Satellite Systems
GOCE	Gravity Field and Steady-State Ocean Circulation Explorer
GOW	Geodetic Observatory Wettzell
GPS	Global Positioning System
GRACE	Gravity Recovery and Climate Experiment
GRAF	German GPS REference network
GRGS	Groupe de Recherches de Géodésie Spatiale (France)
GSD	Geodetic Survey Division of Natural Resources Canada (Canada)
GSFC	Goddard Space Flight Center (USA)
GSI	Geographical Survey Institute (Japan)
GSOC	German Space Operations Center
GeoDAF	Geodetic Data Archiving Facility (Italy)
HEMT	High Electron Mobility Transistor
HMO	Hermanus Magnetic Observatory (South Africa)

HPBW	Half Power Beam Width
HTS	High Temperature Superconductor
HTSI	Honeywell Technology Solutions Incorporated (USA)
HartRAO	Hartebeesthoek Radio Astronomy Observatory (South Africa)
IAA	Institute of Applied Astronomy (Russia)
IAG	International Association of Geodesy
IAU	International Astronomical Union
ICRF	International Celestial Reference Frame
ICRS	International Celestial Reference System
IDS	International DORIS Service
IDV	Intra-Day Variability
IERS	International Earth Rotation and Reference Systems Service
IF	Intermediate Frequency
IGFN	Italian Space Agency GPS Fiducial Network (Italy)
IGG	Institute of Geodesy and Geophysics (Austria)
IGGB	Institut für Geodäsie und Geoinformation der Universität Bonn (Germany)
IGM	Instituto Geográfico Militar (Chile)
IGN	Instituto Geográfico Nacional (Spain)
IGS	International GNSS Service
ILRS	International Laser Ranging Service
INAF	Istituto Nazionale di Astrofisica (Italy)
INGV	Institute of Geophysics and Volcanology (Italy)
INPE	Instituto Nacional de Pesquisas Espaciais (Brazil)
IPAC	Infrared Processing and Analysis Center (USA)
IRA	Istituto di RadioAstronomia (Italy)
IRASR	Institute for Radio Astronomy and Space Research (New Zealand)
ITRF	International Terrestrial Reference Frame
ITRS	International Terrestrial Reference System
IUGG	International Union of Geodesy and Geophysics
IVS	International VLBI Service for Geodesy and Astrometry
IWV	Integrated Water Vapor
IYA	International Year of Astronomy
JADE	Japanese Dynamic Earth observation by VLBI
JARE	Japanese Antarctic Research Expedition (Japan)
JIVE	Joint Institute for VLBI in Europe
JLRA	Joint Laboratory for Radio Astronomy (China)
JPL	Jet Propulsion Laboratory (USA)
JoG	Journal of Geodesy
KARAT	KAshima RAy-tracing Tools (Japan)
KARATS	KAshima RAy-Tracing Service (Japan)
KAREN	Kiwi Advanced Research and Education Network (New Zealand)
KASI	Korea Astronomy and Space Science Institute (Korea)
KAT	Karoo Array Telescope (South Africa)
KPGO	Koike Park Geophysical Observatory (USA)
KSP	KeyStone Project (Japan)

KSRC	Kashima Space Research Center (Japan)
KTU	Karadeniz Technical University (Turkey)
KVG	Korea VLBI for Geodesy (Korea)
KVN	Korean VLBI Network
LAGEOS	LAser GEOdynamic Satellite
LBA	Long Baseline Array (Australia)
LBADR	Long Baseline Array Disk Recorder
LEO	Low Earth Orbit
LLR	Lunar Laser Ranging
LNA	Low Noise Amplifier
LO	Local Oscillator
LOD	Length Of Day
LQAC	Large Quasar Astrometric Catalog
LRS	Laser Ranging System
LSB	Lower Side Band
LSC	Least Squares Collocation
LSM	Least Squares Method
MAO	Main Astronomical Observatory (Ukraine)
MARBLE	Multiple Antenna Radio-interferometry for Baseline Length Evaluation
MCI	Monitor and Control Infrastructure
MIT	Massachusetts Institute of Technology (USA)
MITEQ	Microwave Information Transmission Equipment (USA)
MLRO	Matera Laser Ranging Observatory (Italy)
MOBLAS	MOBile LAser
MPI	Max-Planck-Institute (Germany)
MPIfR	Max-Planck-Institute for Radioastronomy (Germany)
MPM	Millimetre-Wave Propagation Model
MTLRS	Modular Transportable Laser Ranging System
NAO	National Astronomical Observatories (China)
NAOJ	National Astronomical Observatory of Japan (Japan)
NASA	National Aeronautics and Space Administration (USA)
NCAR	National Center for Atmospheric Research (USA)
NCCS	New Control Computer System
NCEP	National Centers for Environmental Prediction (USA)
NCRIS	National Collaborative Research Infrastructure Strategy (Australia)
NEC	NEC Corporation (originally Nippon Electric Company, Limited) (Japan)
NED	NASA/IPAC Extragalactic Database
NEOS	National Earth Orientation Service (USA)
NGS	National Geodetic Survey (USA)
NGSLR	Next Generation Satellite Laser Ranging system
NICT	National Institute of Information and Communications Technology (Japan)
NIPR	National Institute of Polar Research (Japan)
NMA	Norwegian Mapping Authority (Norway)
NMF	Niell Mapping Function
NMW	Numerical Weather Models

NNR	No-Net-Rotation
NNT	No-Net-Translation
NOAA	National Oceanic and Atmospheric Administration (USA)
NOFS	U.S. Naval Observatory Flagstaff Station (USA)
NRAO	National Radio Astronomy Observatory (USA)
NRCan	Natural Resources Canada (Canada)
NVI	NVI, Inc. (USA)
NetCDF	Network Common Data Form
OAM	Observatorio Astronómico de Madrid (Spain)
OAN	Observatorio Astronómico Nacional (Spain)
OCA	Observatoire de la Côte d'Azur (France)
OCARS	Optical Characteristics of Astrometric Radio Sources
OPAR	Observatoire de Paris (France)
OPC	(IVS) Observing Program Committee
ORCA	Optical ReCeiver/splitter/Amplifier
OS	Operating System
OSO	Onsala Space Observatory (Sweden)
PARNASSUS	Processing Application in Reference to NICT's Advanced Set of Softwares Usable for Synchronization
PERSAC	Pulkovo EOP and Reference Systems Analysis Center (Russia)
PFB	Polyphase Filter Bank
PIVEX	Platform Independent VLBI EXchange format
PLDRO	Phase Locked Dielectric Resonator Oscillator
PLXO	Phase Locked Crystal Oscillator
POLARIS	POLar motion Analysis by Radio Interferometric Surveying
PSU	Power Supply Unit
QZSS	Quasi Zenith Satellite System (Japan)
RAEGE	Red Atlántica de Estaciones Geodinámicas y Espaciales
RAO	Radio Astronomical Observatory
RAS	Russian Academy of Sciences (Russia)
RDBE	Roach Digital Backend
RDV	Research and Development sessions using the VLBA
RFI	Radio Frequency Interference
ROACH	Reconfigurable Open Architecture Computing Hardware
ROEN	Rádio-Observatório Espacial do Nordeste (Brazil)
RRFID	Radio Reference Frame Image Database
RTCP	Real-Time Transport Control Protocol
RTNF	Radio Telescope National Facility (New Zealand)
RTP	Real-Time Transport Protocol
SAC	Satellite Application Centre (South Africa)
SAI	Sternberg State Astronomical Institute
SATA	Serial Advanced Technology Attachment
SDK	Software Development Kit
SEFD	System Equivalent Flux Density
SHAO	SHanghai Astronomical Observatory (China)

SINEX	Solution INdependent EXchange format
SKA	Square Kilometer Array
SLR	Satellite Laser Ranging
SMART	Small Missions for Advanced Research and Technology
SOSW	Satellite Observing System Wettzell (Germany)
SPEED	Short Period and Episodic Earth rotation Determination
SPU	Saint-Petersburg University (Russia)
SPV	Signal Path Variation
SPbU	Saint-Petersburg University (Russia)
SRIF	Square Root Information Filter
SRT	Sardinia Radio Telescope (Italy)
SRTM	Shuttle Radar Topography Mission
SSAI	Science Systems and Applications, Inc. (USA)
SST	Satellite to Satellite Tracking
STEREO	Solar TERrestrial RELations Observatory
SvRAO	Svetloe Radio Astronomical Observatory (Russia)
TAC	Totally Accurate Clock
TANAMI	Tracking Active galactic Nuclei with Australia Milliarcsecond Interferometry (Australia)
TAO	Telecommunications Advanced Organization (Japan)
TDC	(IVS) Technology Development Center
TEC	Total Electron Content
TEMPO	Time and Earth Motion Precision Observations
TIGO	Transportable Integrated Geodetic Observatory (Germany, Chile)
TLRS	Transportable Laser Ranging System
TRF	Terrestrial Reference Frame
TTW	TWIN-Telescope Wettzell (Germany)
TWSTFT	Two-Way Satellite Time and Frequency Transfer
TZD	Total Zenith Delay
TerraSAR-X	Terra Synthetic Aperture Radars X-band (Germany)
UDC	Up-Down Converter
UEN	Up East North
UNIS	University Centre in Svalbard (Norway)
URSI	Union Radio-Scientifique Internationale
USB	Upper Side Band
USNO	United States Naval Observatory (USA)
UT	Universal Time
UT1	Universal Time
UTAS	University of TASmania (Australia)
UTC	Coordinated Universal Time
VC	Video Converter
VCS	VLBA Calibrator Survey
VDIF	VLBI Data Interchange Format
VERA	VLBI Exploration of Radio Astrometry
VEX	VLBI EXchange format

VLBA	Very Long Baseline Array (USA)
VLBI	Very Long Baseline Interferometry
VMF	Vienna Mapping Functions
VO	Virtual Observatory
VSI	VLBI Standard Interface
VSI-H	VLBI Standard Interface Hardware
VSI-S	VLBI Standard Interface Software
VSOP	VLBI Space Observatory Program
VSSP	Versatile Scientific Sampling Processor
VTEC	Vertical Total Electron Content
VTP	VLBI Transmission Protocols
VTRF	VLBI Terrestrial Reference Frame
WACO	WAshington COrrelator (USA)
WG	Working Group
WMAP	Wilkinson Microwave Anisotropy Probe
WVR	Water Vapor Radiometer
WWW	World Wide Web
XDM	eXperimental Development Model
ZHD	Zenith Hydrostatic Delay
ZTD	Zenith Total Delay
ZWD	Zenith Wet Delay
ZeRAO	Zelenchukskaya Radio Astronomical Observatory (Russia)
e-VLBI	Electronic VLBI