GRaND Acronyms, Abbreviations, Definitions and Terms

ADC	Analog to Digital Converter
AMP	Linear amplifier
ATLO	Assembly, Test, and Launch Operations
AUX	Auxilliary information
BLP	Boron-Loaded Plastic
BGO	Bismuth Germanate
CAT	Category (refers to event categories recognized by GRaND's FPGA)
CAT1	A single pulse with any of GRaND's BLP scintillators and phoswiches, and no detected interactions with any other sensor
CAT2	A coincidence between the BGO scintillator and any one of the four BLP scintillators, and no interactions with any other sensor
CAT4	A prompt pulse from any one of the four BLP/Phoswich scintillators followed within 25.5 microseconds by a second pulse in any BLP/Phoswich sensor, and no interactions with any other sensor
CAT7	A coincidence between any one of the CZT sensors and the BGO scintillator, and no interactions with any other sensor
CAT9	A pulse from the BGO scintillator, and no interactions with any other sensor
CAT10	A pulse from any one of the CZT sensors and no interaction with any other sensor
CMA	Central Moving Average
CPG	Coplanar Grids
CZT	Cadmium Zinc Telluride
DLR	Differential Line Receiver
DN	Data Number
DSC	Dawn Science Center at UCLA
DTS	Decimated Time Series
EDR	Experimental Data Record
EMC	Electromagnetic conductance or Earth-Mars Cruise

EMI	Electromagnetic interference
EOP	End of Process
Event	Spatio-temporal pattern of pulses recognized by GRaND's FPGA and organized into categories (CATs). Events begin with the detection of a pulse and end with an EOP signal generated by the FPGA.
FC	Framing Camera
FEE	Front End Electronics
FEIR	Full Energy Interaction Rate
FET	Field Effect Transistor
FPGA	Field Programmable Gate Array
FWHM	Full Width at Half Maximum
GI	Gated Integrator
GPAW	GRaND Peak Analysis Widget
GRaND	Gamma Ray and Neutron Detector
HAMO	High Altitude Mapping Orbit
HAMO2	The second HAMO which followed LAMO
HED	Howardite, Eucrite, and Diogenite
HV	High Voltage
HVPS	High Voltage Power Supply
ICO	Initial Check Out
IDL	Interactive Data Language. A programming language used for data processing, analysis, and visualization distributed by Exelis Visual Information Solutions. The EXTRAS directory contains IDL functions that can be used to examine the EDR.
INV	Signal invert
JPL	Jet Propulsion Laboratory
LAMO	Low Altitude Mapping Orbit
LIG	Lithium-loaded Glass
LLD	Lower Level Discriminator
LPF	Low Pass Filter
LVPS	Low Voltage Power Supply

MCA	Mars Closest Approach
MCNPX	Monte Carlo N-Particle eXtended
MGA	Mars Gravity Assist (also known as "Mars Flyby")
MUX	Multiplexor
MVC	Mars-Vesta Cruise
MY	Minus Y direction (GRaND coordinate system)
MZ	Minus Z direction (GRaND coordinate system)
NIPC	Non-Interactive Payload Command
PDS	Planetary Data System
Phoswich	Phosphor sandwich (BLP optically coupled to LIG and viewed by a single PMT)
PMT	Photomultiplier tube
PSI	Planetary Science Institute
PY	Plus Y direction (GRaND coordinate system)
PZ	Plus Z direction (GRaND coordinate system)
QSP	Charge-sensitive preamplifier
RDR	Reduced Data Record
REE	Rare Earth Elements
RMS	Root Mean Square
Scaler	Pulse counter. GRaND has 23 such counters, which record, for example, dead time, overloads, and gross counts for different event categories. The counts accumulated in scalers are recorded in the SOH and science telemetry. At the beginning of each science accumulation interval (duration given by TELREADOUT), the scalers are set to zero.
SCET	Spacecraft event time
SCLK	Spacecraft clock
SEP	Solar Energetic Event
SIS	Software Interface Specification
SOH	State of Health
SPICE	System of applications and data maintained by NASA's Navigation and Ancilliary Information Facility (Acton, 1996)

SSD	Scintillator Shaper-Digitizer
S/C	Spacecraft
TELREADOUT	Accumulation time for science data records (seconds)
TELSOH	Sampling interval for state of health (housekeeping) data (seconds)
TG	Threshold Generator
TTSP	Time to Second Pulse
TVACQ	Thermal cycling in Vacuum for instrument Qualification
UART	Universal Asynchronous Receiver/Transmitter
UCLA	University of California, Los Angeles
UTC	Coordinated universal time
VIR	Visible and Infrared
VR	Virtual Recorder
VSA	Vesta Science Approach
VSS	Vesta Science Survey
VTH	Vesta Transfer to HAMO
VSH	Vesta Science HAMO
VTL	Vesta Transfer to LAMO
VSL	Vesta Science LAMO
VT2	Vesta Transfer to HAMO2
VH2	Vesta HAMO2
WEH	Water-Equivalent Hydrogen
ZCD	Zero-Crossing Discriminator