The ILRS web site as a collaboration tool

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ILRS web site is a focal point for both the analysis and engineering community. There are various types of information available at the site for use by both communities: reports, e-mail archive, bibliographic information, site information, data quantity and quality charts and plots, “quarterly report”, analysis information, and standard product links and displays.

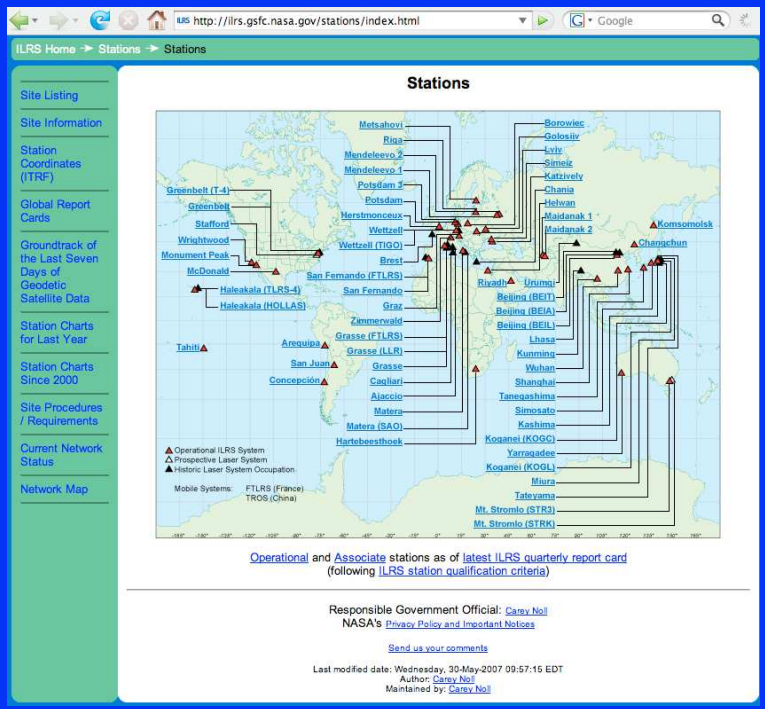
Examples of these will be shown to remind the community what is available, and to solicit comments, requests, questions . . .

station performance on multiple satellites

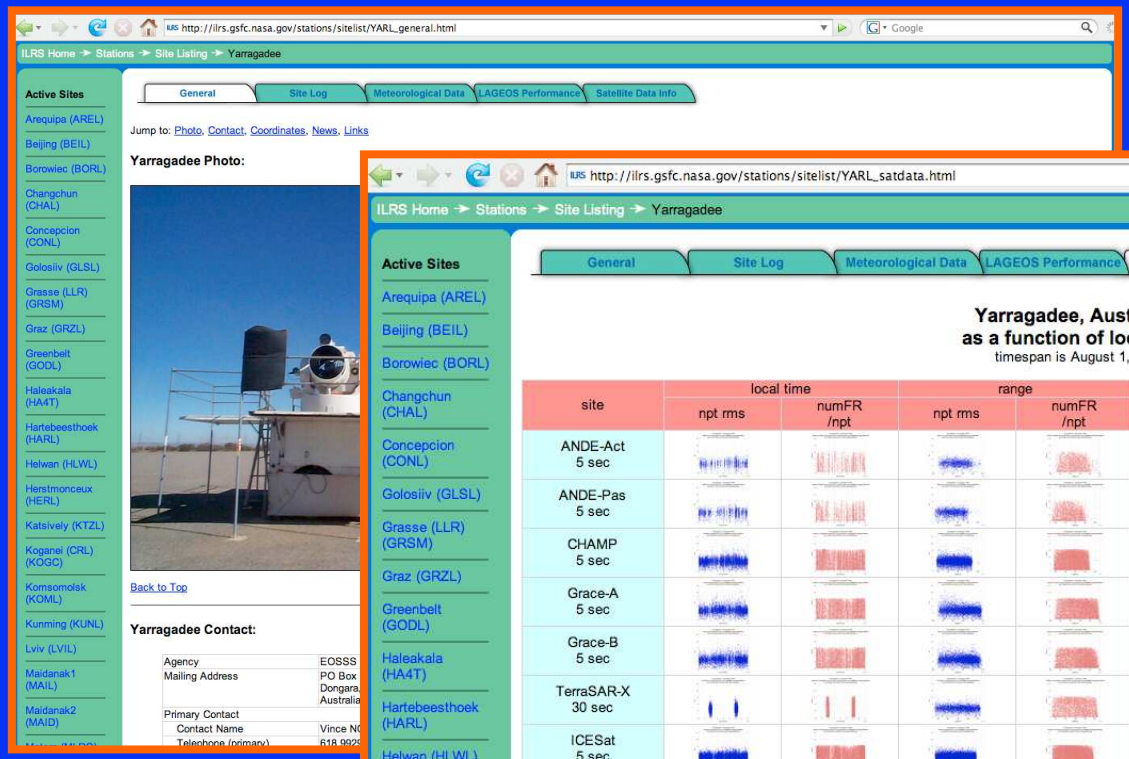
Are there patterns in a station's data as a function of time, local time, or satellite range, or . . .

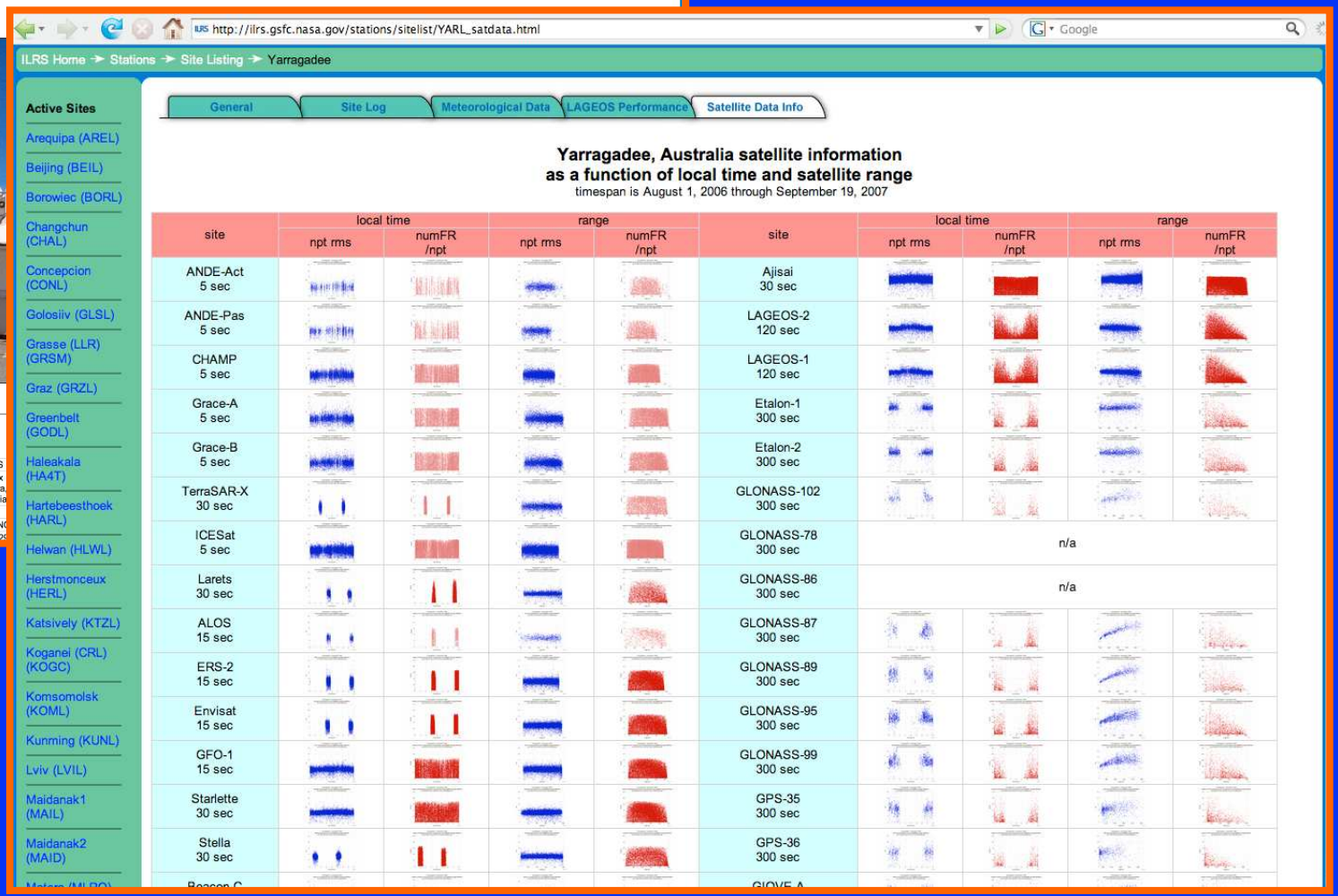
Plots available at the ilrs web site may provide some insight . . .

(shown at Canberra, Workshop)



station performance on multiple satellites

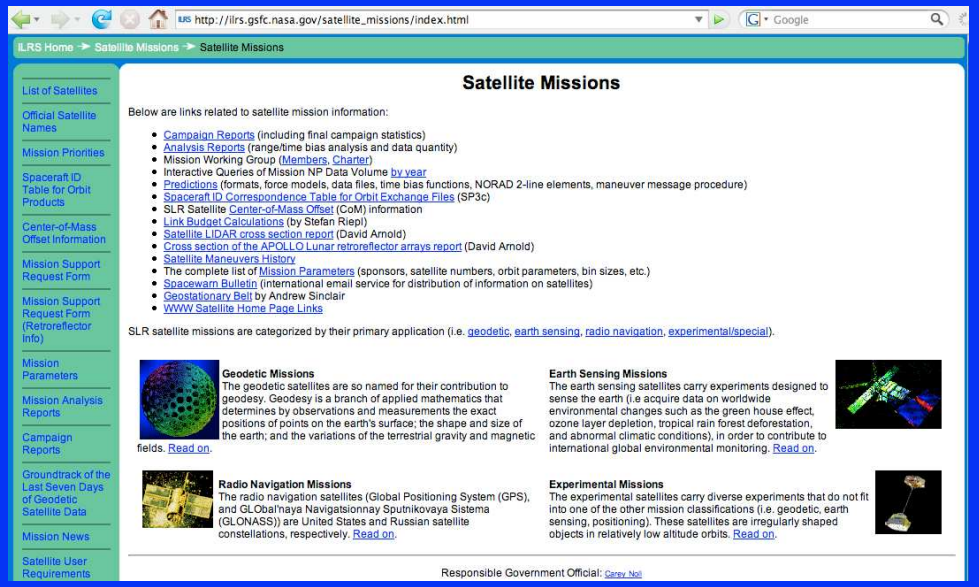




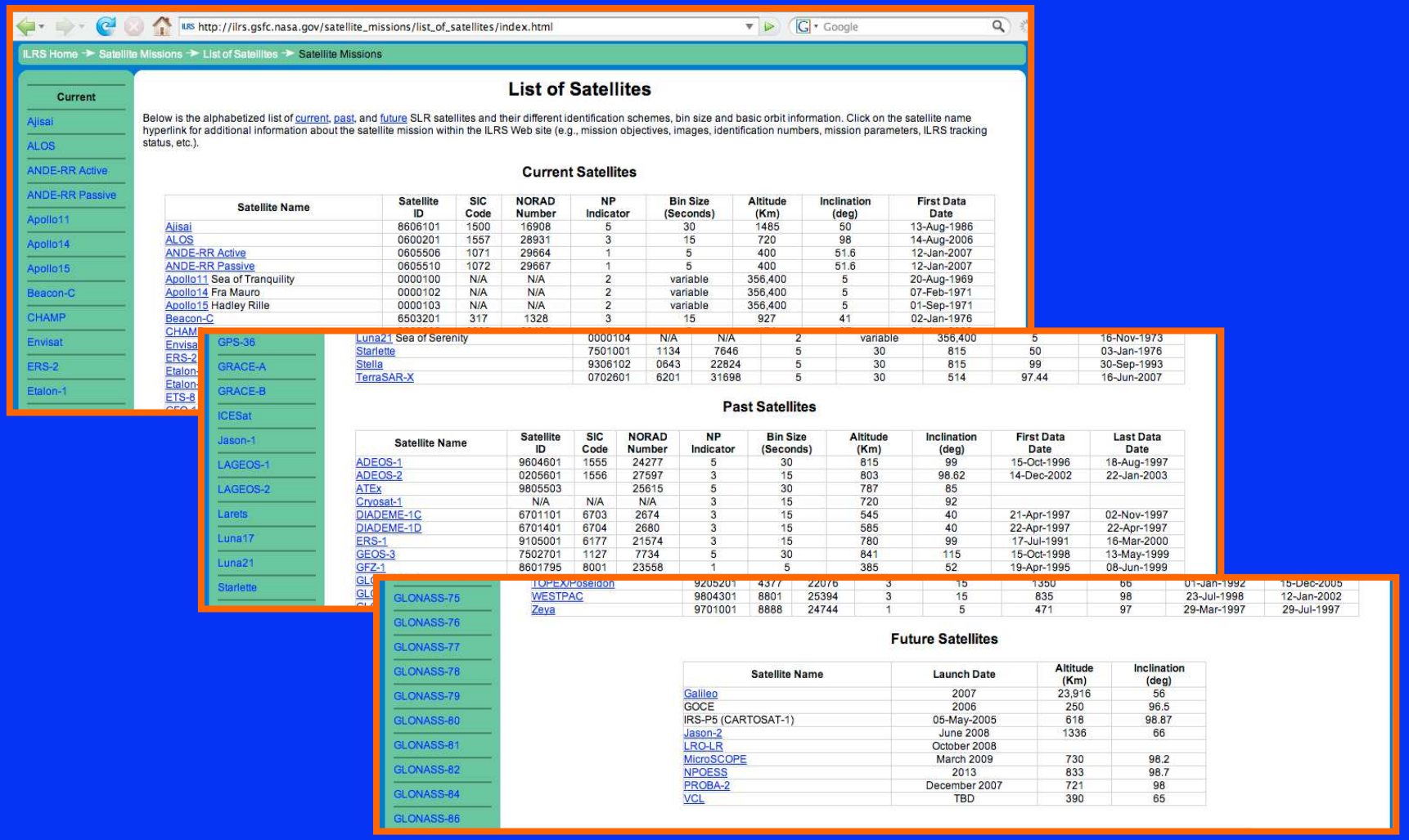
satellite web pages

Are there patterns in a currently tracked satellite's data as a function of time, local time, or satellite range, or are there patterns that are station dependent . . .

Again, plots available at the ilrs web site may provide some insight . . .



satellite web pages



satellite web pages

http://ilrs.gsfc.nasa.gov/satellite_missions_2/list_of_satellites/ade1_general.html

ILRS Home → List of Satellites → ADEOS-1 Satellite Information

Current
Ajisai
ALOS
ANDE-RR Active
ANDE-RR Passive
Apollo11
Apollo14
Apollo15
Beacon-C
CHAMP
Envisat
ERS-2
Etalon-1
Etalon-2
ETS-8
GFO-1
GIOVE-A
GLONASS-95
GLONASS-99
GLONASS-102

General | ILRS Mission Support | RetroReflector Info | Array Offset

ADEOS-1

Jump to: Mission Objectives, Mission Instrumentation, Mission Parameters, Additional Information

Mission Photos:

Mission Objectives:

The ADvanced Earth Observing Satellite 1 (ADEOS
environmental monitoring. The objective of ADEOS
and abnormal climatic conditions. A secondary obj
observation systems.

Mission Instrumentation:

ADEOS-1 had the following instrumentation onboa

1. Advanced visible near infrared radiometer

http://ilrs.gsfc.nasa.gov/satellite_missions_2/list_of_satellites/lag1_ger

ILRS Home → List of Satellites → LAGEOS-1 Satellite Information

Current
Ajisai
ALOS
ANDE-RR Active
ANDE-RR Passive
Apollo11
Apollo14
Apollo15
Beacon-C
CHAMP
Envisat
ERS-2
Etalon-1
Etalon-2
ETS-8
GFO-1
GIOVE-A
GLONASS-95
GLONASS-99

General | ILRS Mission Support | RetroReflector Info | Array Offset | Station Data Info

LAGEOS-1, -2

Jump to: Mission Objectives, Mission Instrumentation, Mission Parameters, Additional Information

Mission Photos:

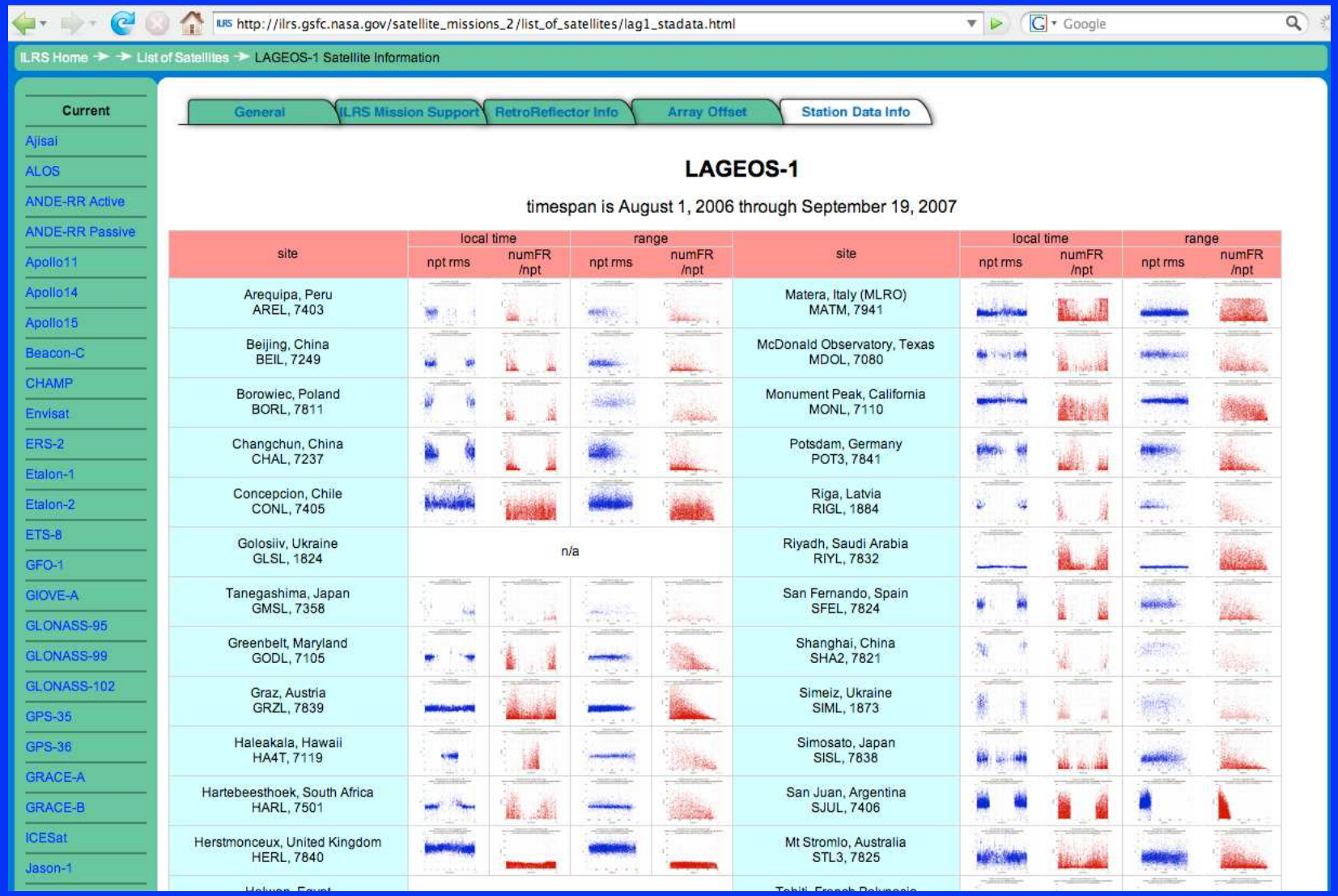
Courtesy of ASI

Mission Objectives:

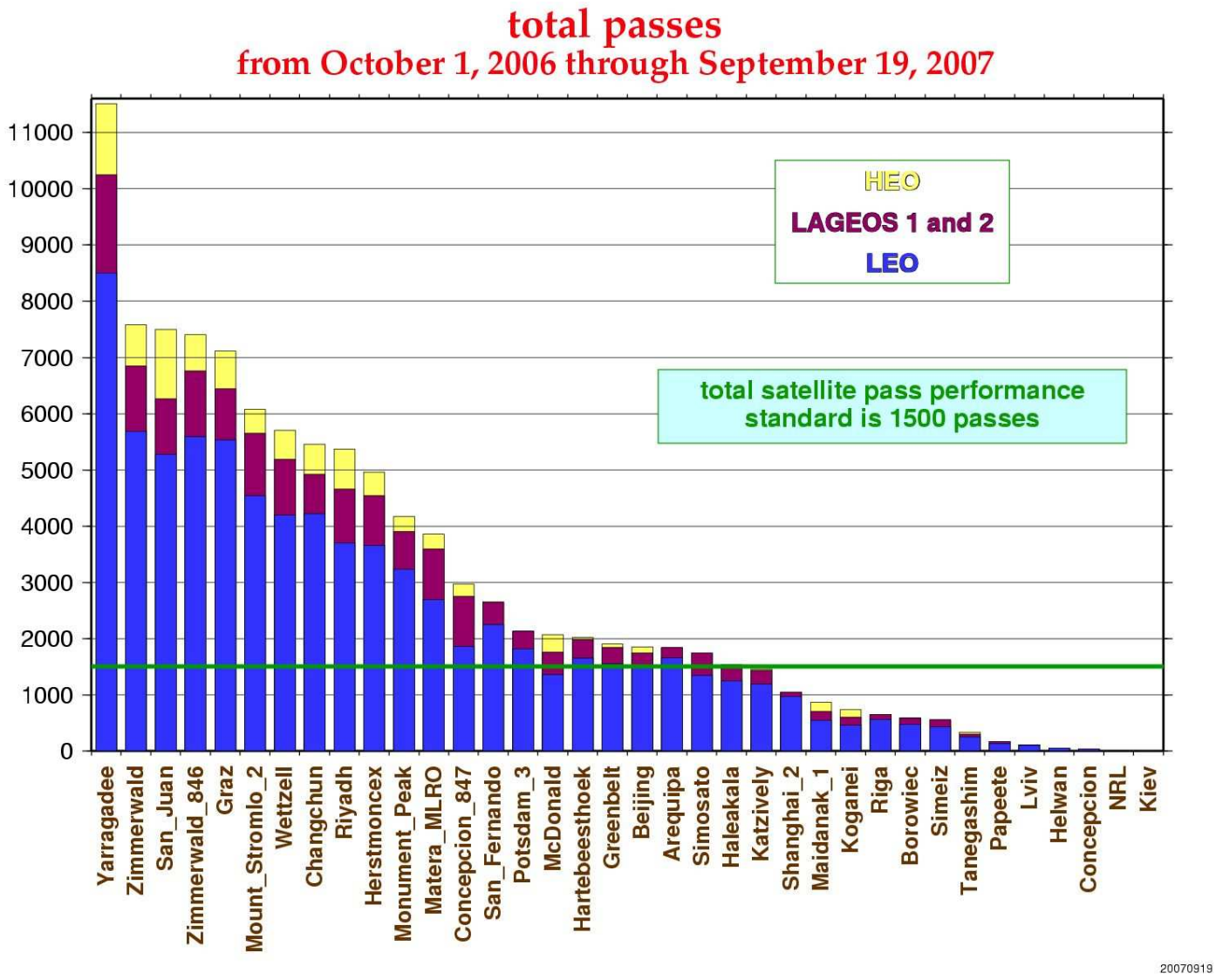
LAser GEOdynamics Satellite-1 (LAGEOS) was designed by NASA and launched in 1976. It was the first spacecraft dedicated exclusively to high-precision laser ranging and provided the first opportunity to acquire laser-ranging data that were not degraded by errors originating in the satellite orbit or satellite array. LAGEOS-2, based on the LAGEOS-1 design, was built by the Italian Space Agency and was launched in 1992.

There are plans for the launch of LAGEOS-3, which is a joint multinational program with collaboration from France, Germany, Great Britain, Italy, Spain and the United States. Data from LAGEOS-3 would be used to measure, for the first time, a quasi-stationary property of the Earth - its gravitational magnetic dipole moment as predicted by Einstein's theory of general relativity.

satellite web pages



“quarterly report card”



standard product web page

http://ilrs.gsfc.nasa.gov/products_formats_procedures/products.html

ILRS Home → Data & Products → Official ILRS Products

- Official ILRS Products
- Official ILRS Products Description
- Normal Point Data
- Full-Rate Data
- Predictions
- Consolidated Laser Ranging Data (CRD) Format
- Data Corrections
- Official Satellite Names
- Restricted Tracking Information
- Site Positions and Velocities
- Data Flow
- FTP Archives

ILRS Products

Official ILRS products consist of solutions for station coordinates and Earth Orientation Parameters (EOPs). The ILRS generates weekly, unconstrained solutions for station coordinates (valid for the mid-point of each 7-day interval) and EOPs (x-pole, y-pole and Length-Of-Day (LOD), all at 1-day intervals). A description of the analysis can be found at http://ilrs.gsfc.nasa.gov/products_formats_procedures/ilrs_products_desc.html. These results are stored in subdirectories "pos+eop/YYMMDD", where "YYMMDD" is the date (YY=2 digit year, MM=2 digit month, and DD=2 digit day) of the end of each 7-day interval. Within each subdirectory, are the solutions from the combination centers and individual analysis centers.

click on the thumbnail to view a larger image of the location of the tacking data, click on the links to download the solution file via ftp

Solution end date, gps week, and data location		combination solution *	analysis center contributions						
			asi	bkg	dgfi	ga	gfz	jcet	ngsf
20070908 1443		pos+eop eop / sum snx snx	n/a	snx	snx	snx	snx	snx	snx
20070901 1442		pos+eop eop / sum snx snx	n/a	snx	snx	snx	snx	snx	snx
20070825 1441		pos+eop eop / sum snx snx	snx	snx	snx	snx	snx	snx	snx
20070818 1440		pos+eop eop / sum snx snx	n/a	snx	snx	snx	snx	snx	snx
20070811 1439		pos+eop eop / sum snx snx	snx	snx	snx	snx	snx	snx	snx

* *pos+eop:* ***SUM****mary file assessing the quality of solution and a* ***SiNeX*** *format solution file for combination* ***POS****ition and* ***E****arth* ***O****rientation* ***P****arameter solution*

eop: *a* ***SiNeX*** *format solution file for the* ***EOP*** *combination product*

The official primary ILRS combination products are formed by ASI Space Geodesy Center. The ILRS's official backup combination center is Deutsches Geodatisches Forschungsinstitut (DGFI). The combination products, and the individual ILRS analysis center contributions to the official combination pos+eop and eop product can be downloaded from the ILRS ftp archive labeled as:

ftp://cddis.gsfc.nasa.gov/pub/pub/slr/products/pos+eop/ YYMMDD/CENTER.pos+eop.YYMMDD.vN.sum
ftp://cddis.gsfc.nasa.gov/pub/pub/slr/products/pos+eop/ YYMMDD/CENTER.pos+eop.YYMMDD.vN.snx
ftp://cddis.gsfc.nasa.gov/pub/pub/slr/products/pos+eop/ YYMMDD/CENTER.eop.YYMMDD.vN.snx

Here, "CENTER" is replaced by either "ilrsa", or "ilrsb", or the abreviated name of the analysis center. The version number "N" for first solution that is generated for this period is labeled as "1". If re-computations are necessary, the version number, "N", will be increased by one. The results are stored in the SINEX format (".snx"). The reader is refered to the COMMENTS section of each solution (in the file itself) or more general explanations of SINEX for further details of the solution and/or the format.

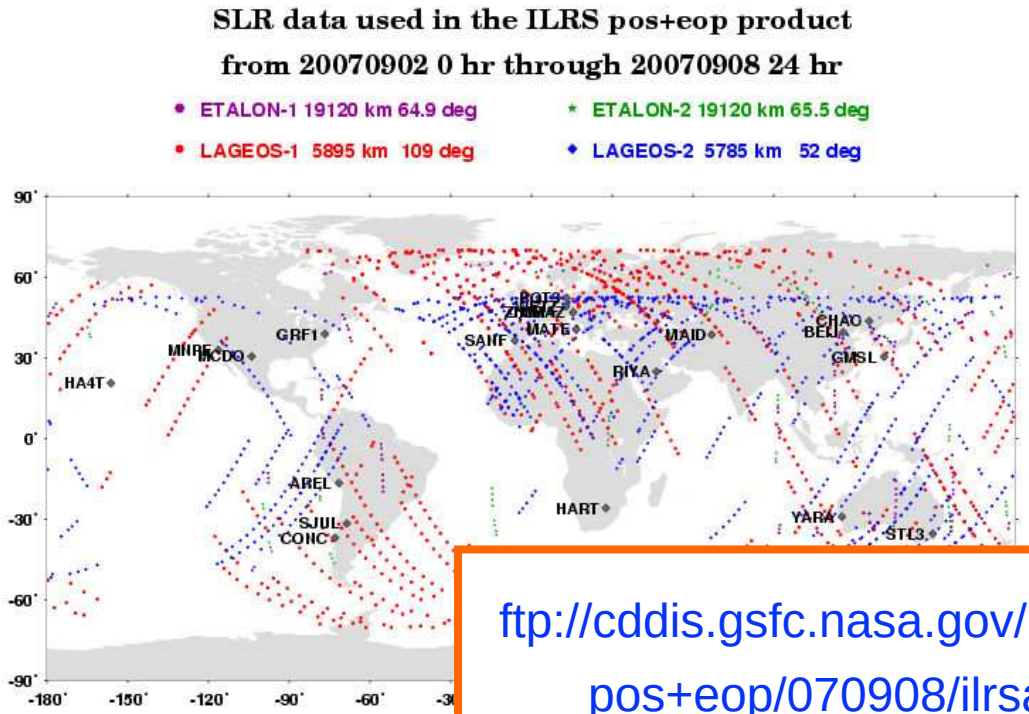
The individual analysis center solutions as well as the combination solutions are monitored on a weekly basis with a graphical and a statistical presentation of these time series available at: site hosted by the JCET analysis center http://geodesy.jcet.umbc.edu/ILRS_QCQA .

For more information and/or suggestions, please contact the CDDIS/EDC Data Center representatives (Carey Noll or Wolfgang Seemueller respectively) or the ILRS Analysis Coordinators (Erricos Pavlis or Cinzia Luceri).

NOTICE: It is **important** that you **acknowledge** the ILRS in your papers and presentations that rely on SLR and results. Please **reference** the following citation:

Pearlman, M.R., Degnan, J.J., and Bosworth, J.M., "The International Laser Ranging Service", Advances in Space Research, Vol. 30, No. 2, pp. 135-143, July 2002.

standard product web page



ftp://cddis.gsfc.nasa.gov/pub/slr/products/pos+eop/070908/ilrsa.pos+eop.070908.v1.sum.Z

ftp://cddis.gsfc.nasa.gov/pub/slr/products/pos+eop/070908/ilrsa.pos+eop.070908.v1.snx.Z

ftp://cddis.gsfc.nasa.gov/pub/slr/products/pos+eop/070908/ilrsa.eop.070908.v1.snx.Z

discussion . . . .

consult ilrs.gsfc.nasa.gov

Questions . . . .

Comments . . . .

Suggestions . . .