



DORIS data processing at the IGN/JPL Analysis Center

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SUMMARY

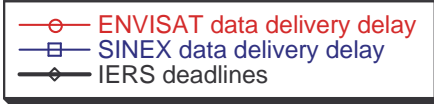
The IGN/JPL Analysis Center

- current available products for IDS
- automated data processing and data delivery
- results accuracy assessments
- current research activities
- Conclusions

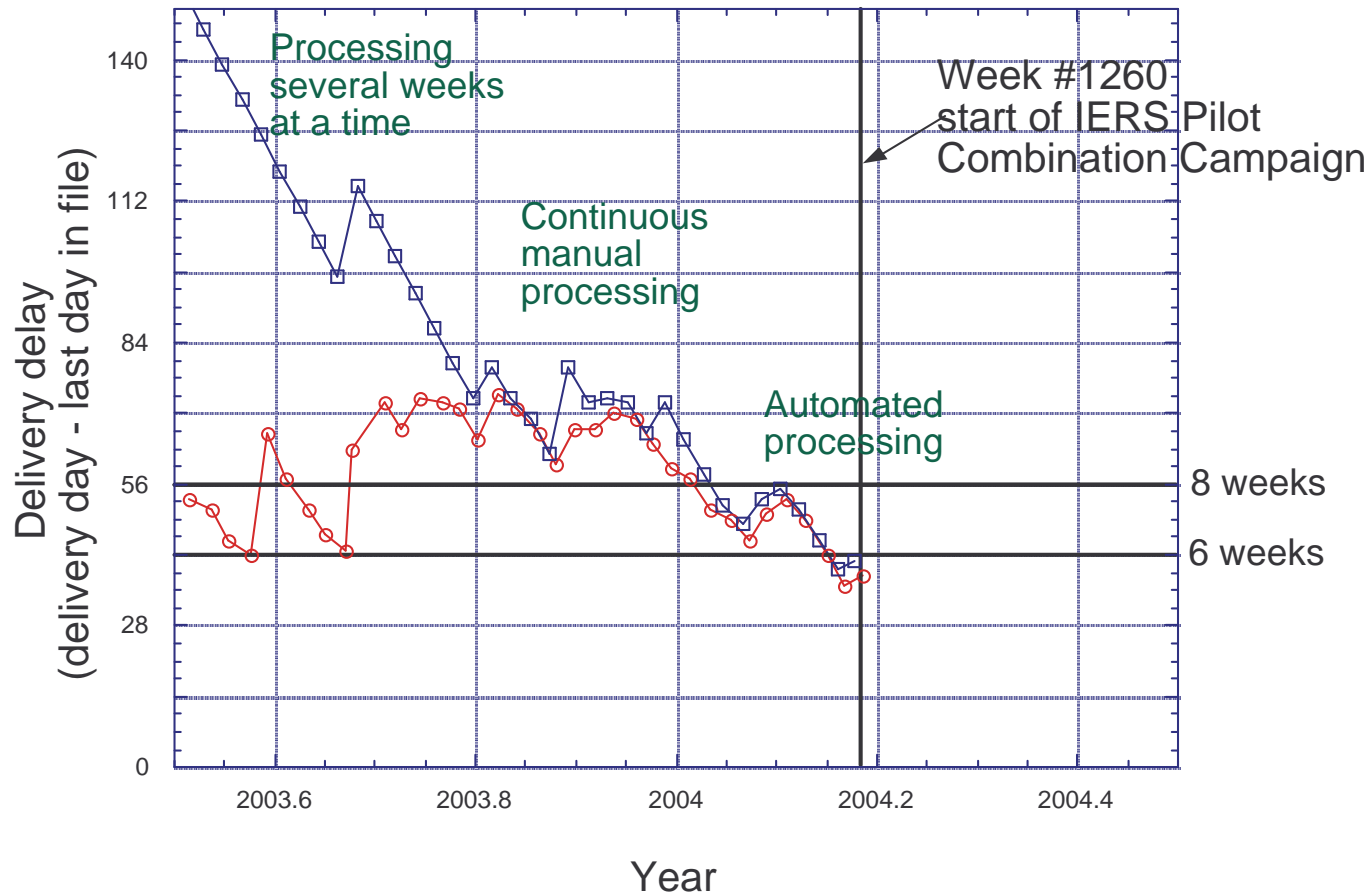


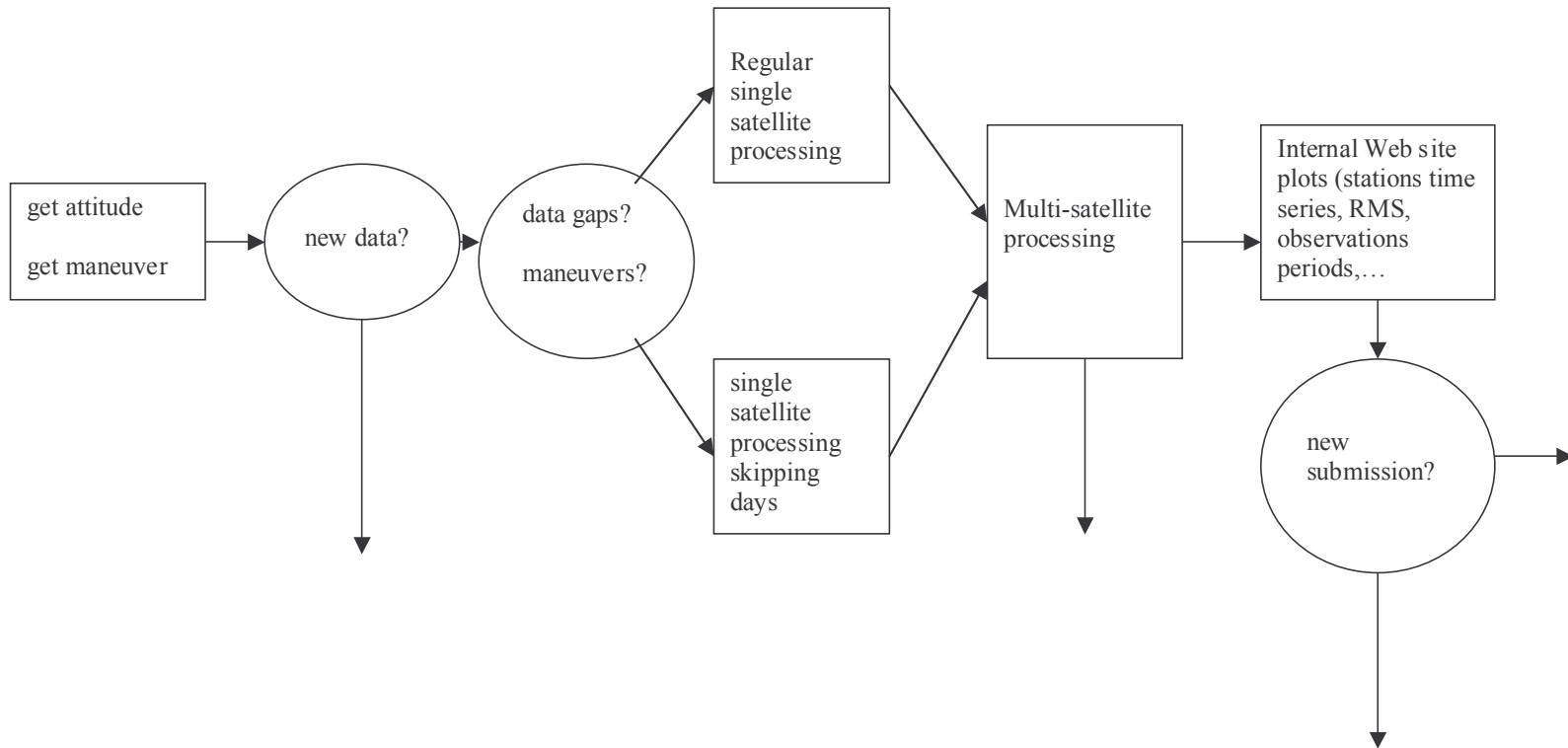
Current products for IDS (April 15, 2004)

Products	Frequency	# of files	Delivery	Comments
Sinex (free)	Weekly	590	6-8 week	after ENVISAT data delivery no Jason data (SAA)
Sinex (ITRF)	Weekly	590	6-8 week	after ENVISAT data delivery no Jason data (SAA)
geocenter	Weekly	1	4-8 week	before and after ENVISAT data no Jason data (SAA)
EOPs	Daily	1	4-8 week	before and after ENVISAT data no Jason data (SAA)
Sinex (free)	Monthly	0	-	not generated
Sinex (ITRF)	Montly	0	-	not generated
orbits	Daily	0	-	not delivered



IGN/JPL Product delivery (April 15, 2004)







Last update: Tue Apr 6 08:34:54 PDT 2004

DORIS weekly solutions (stations coordinates time series)

Transformation parameters

Geocenter variations
Scale factor variations

Global residuals per weekly solution

Weekly residuals

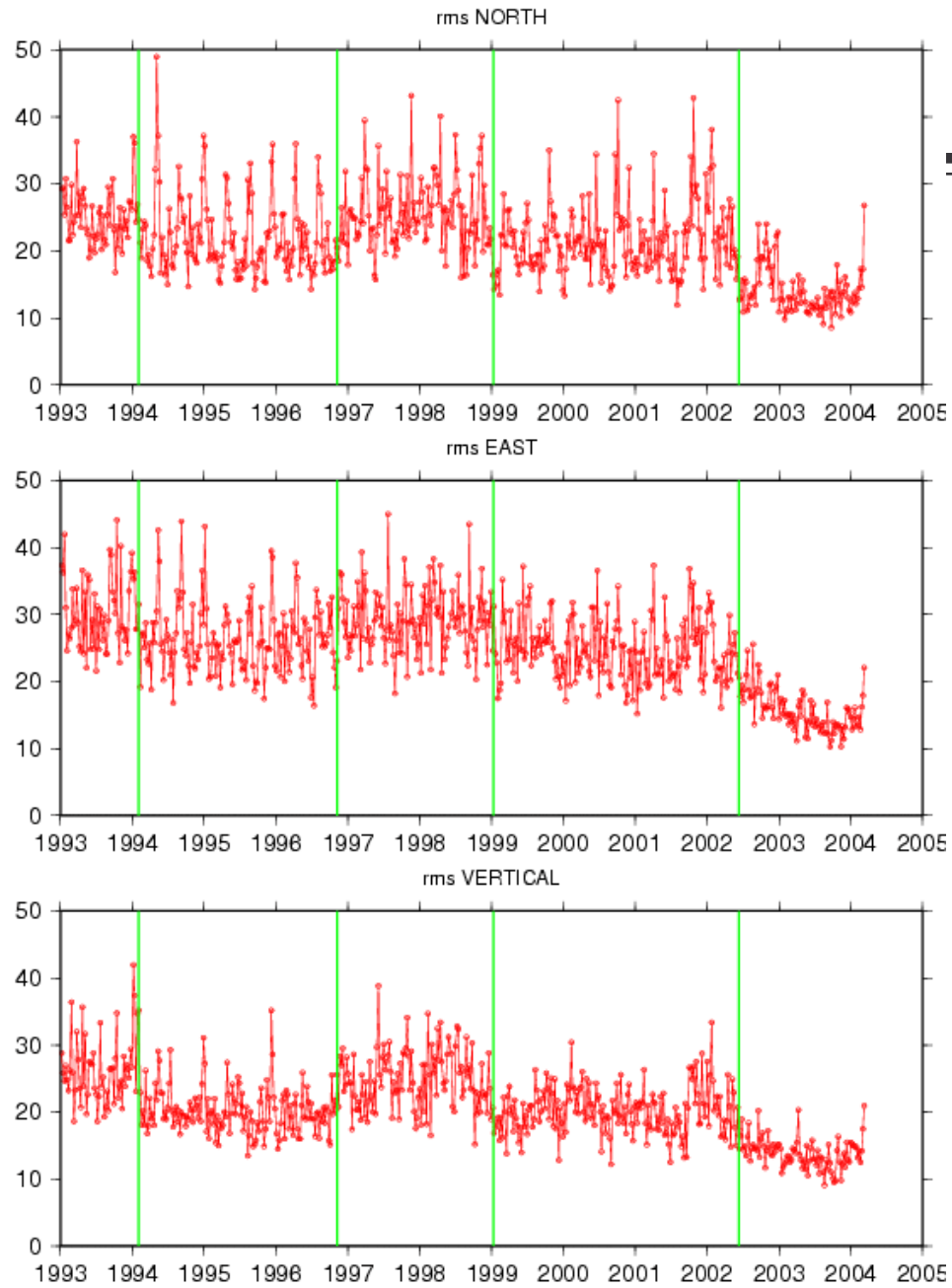
Individual residuals per DORIS station

sorted by acronym
sorted by domes number
sorted by station name
sorted by number of observed week
sorted by observed data span
sorted by RMS in latitude
sorted by RMS in longitude
sorted by RMS in vertical

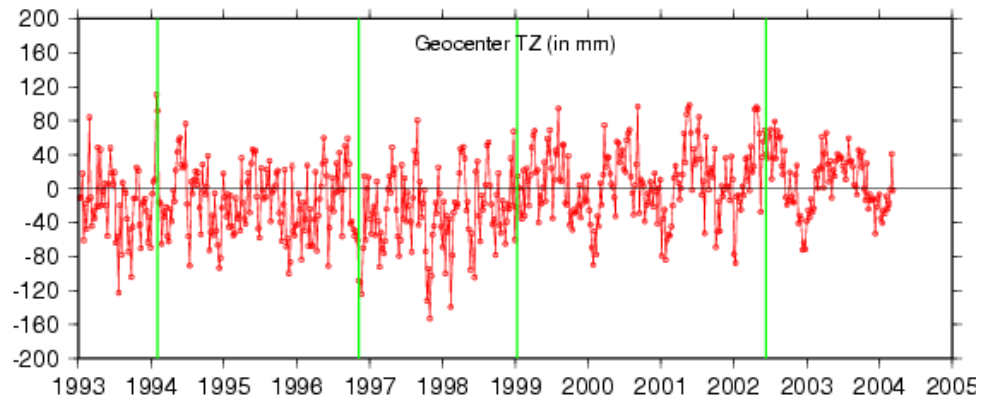
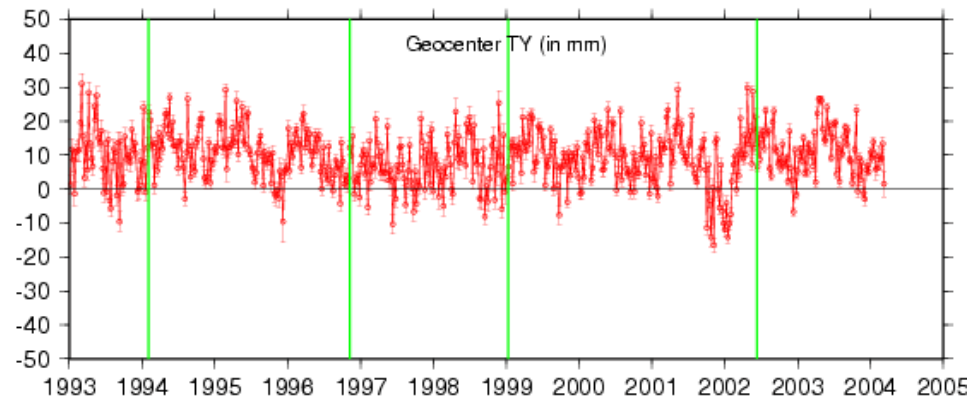
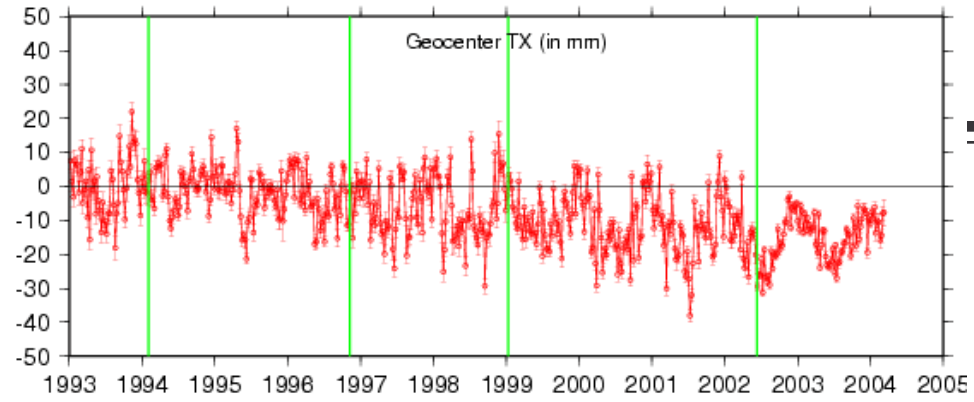
Worst cases

worst standard deviation (latitude)
worst standard deviation (longitude)
worst standard deviation (vertical)
worst differences (latitude)
worst differences (longitude)
worst differences (vertical)

JPL Internal Web site For DORIS products validation



Paris, May



Paris, May 3-4,

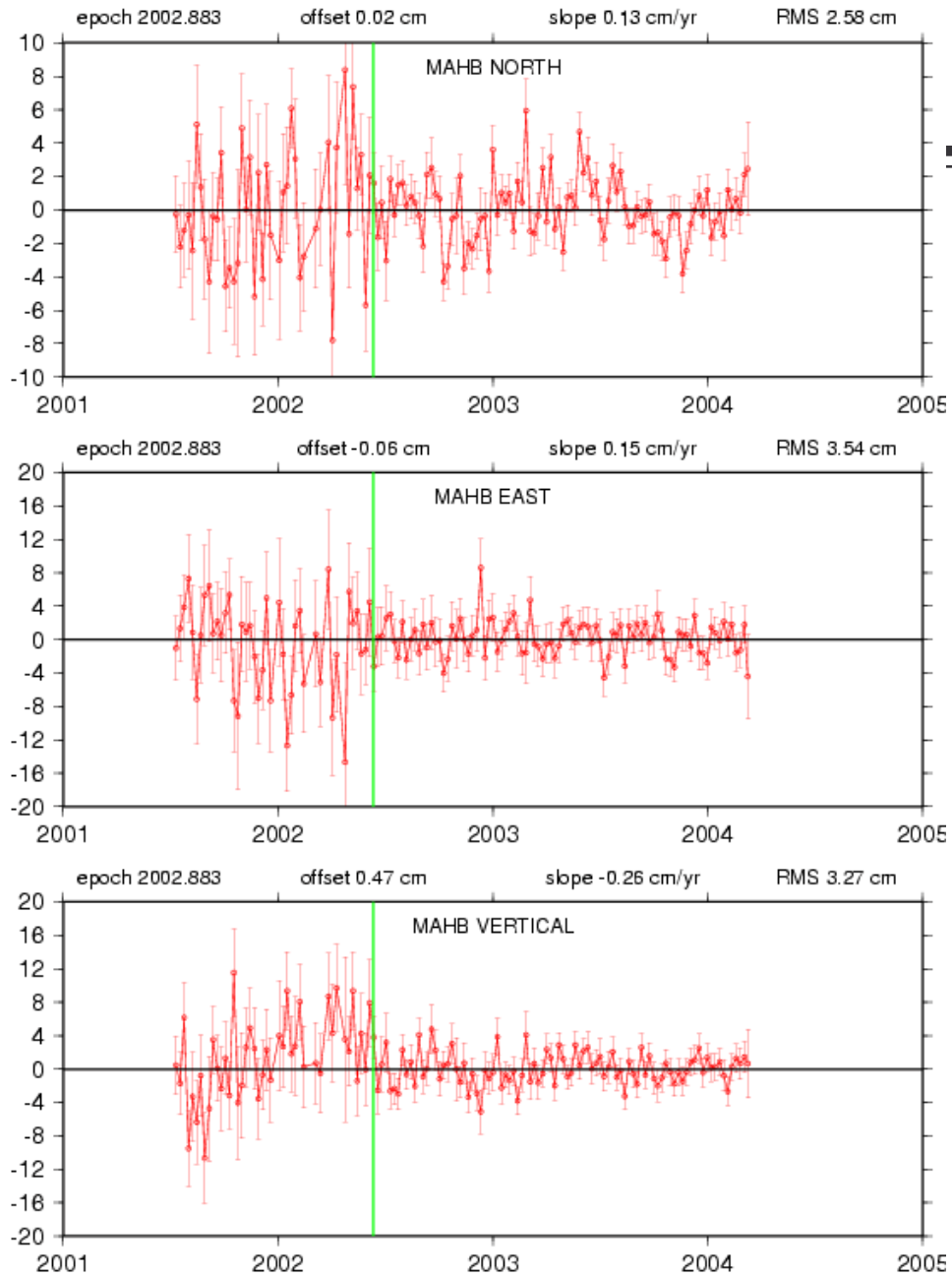
8/14



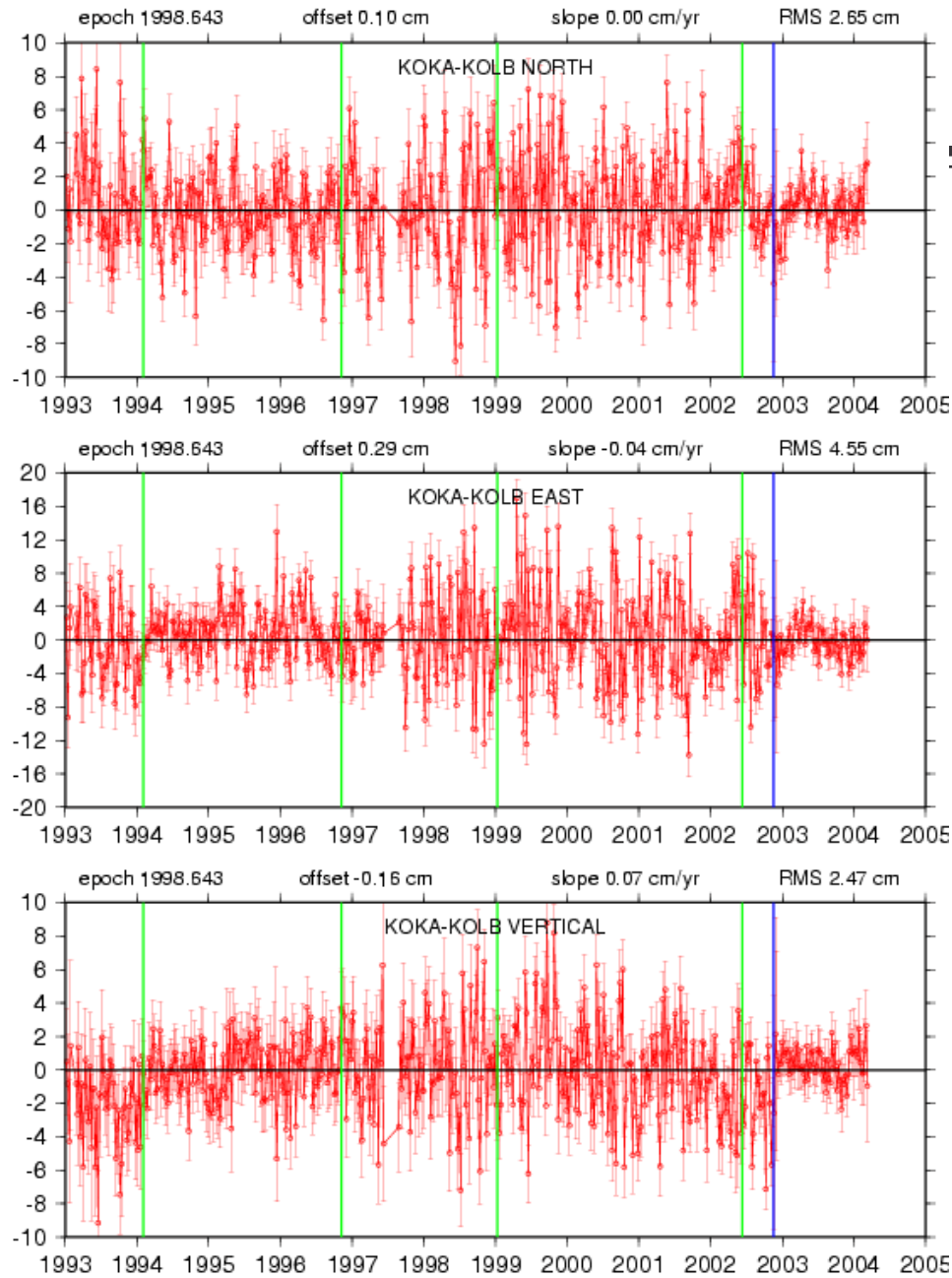
Internal Web site For quality check

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DORIS Weekly results sorted by acronym

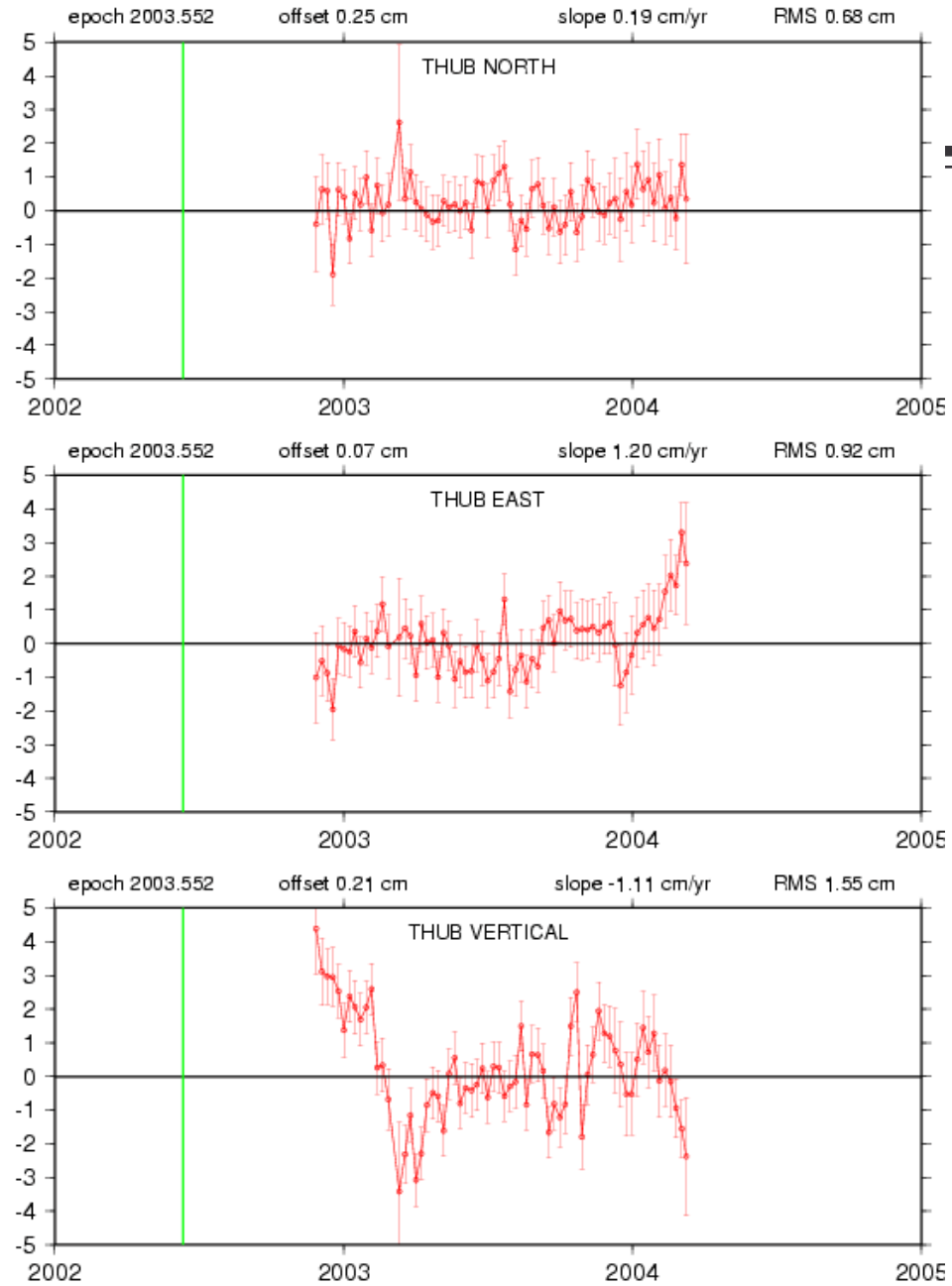
Acronym	domes	DORIS station	#weeks	data span	latitude	longitude	vertical
ADEA	91501	TERRE ADELIE	504	11.12	2.22	2.51	1.62
AMSA	91401	AMSTERDAM	272	11.15	2.73	2.96	2.27
AREA	42202	AREQUIPA	488	10.10	3.15	5.80	3.38
ARMA	33710	ARLIT	209	6.04	3.34	5.33	3.48
ASDB	30602	ASCENCION	240	4.90	2.52	4.06	3.37
BADA	12338	BADARY	420	9.53	2.24	2.84	2.16
CACB	41609	CACHOEIRA	484	10.18	3.99	6.53	3.57
CHAB	50207	CHATHAM ISLAND	210	5.00	2.21	2.89	2.00
CIBB	23101	CIBINONG	503	11.17	2.58	3.85	2.84
COLA	23501	COLOMBO	429	11.17	2.25	3.20	2.15
CROB	91301	CROZET ISLAND	70	0.11	6.58	6.61	5.58
DAKA	34101	DAKAR	384	7.86	2.51	3.90	2.15
DIOA	12602	DIONYSOS	467	10.68	2.59	4.40	2.92
DJIA	39901	DJIBOUTI	533	11.17	2.30	3.92	3.11
EASA	41703	EASTER ISLAND	497	11.17	2.90	4.35	2.72



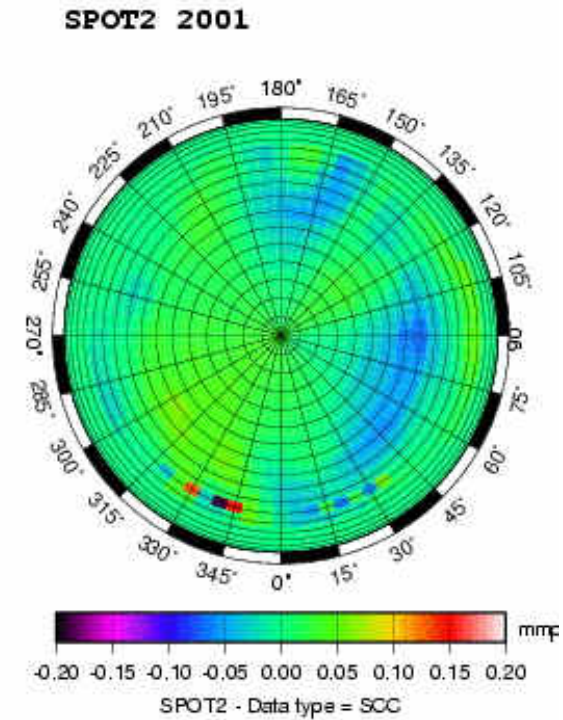
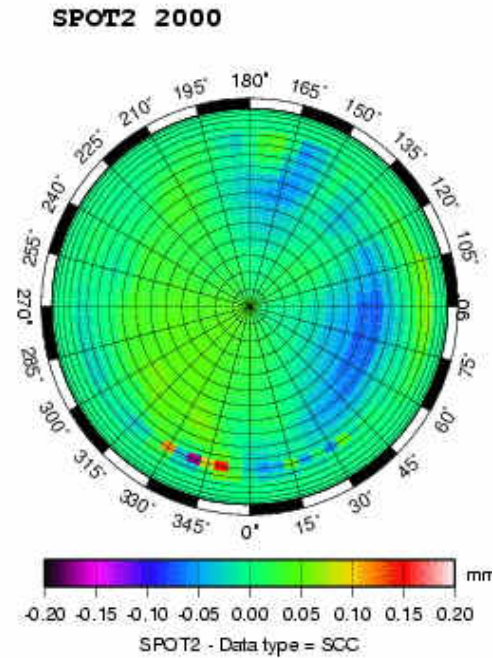
Better results after 2002.5
with 5 satellites
compared to 3



Better results
After change of equipment
In Kokee Park (2002.9)



Better results
With recent stations
THUB



Example of research activity at JPL

DORIS satellite antenna patterns at JPL

= Maps (azimuth/elevation) of residuals: independent per year



CONCLUSIONS

IGN/JPL Analysis Center

- fully operational since December 2003
- fully automated since March 2004

IDS Products: weekly sinex (2) + EOP + geocenter
cumulative solution (positions/velocities)

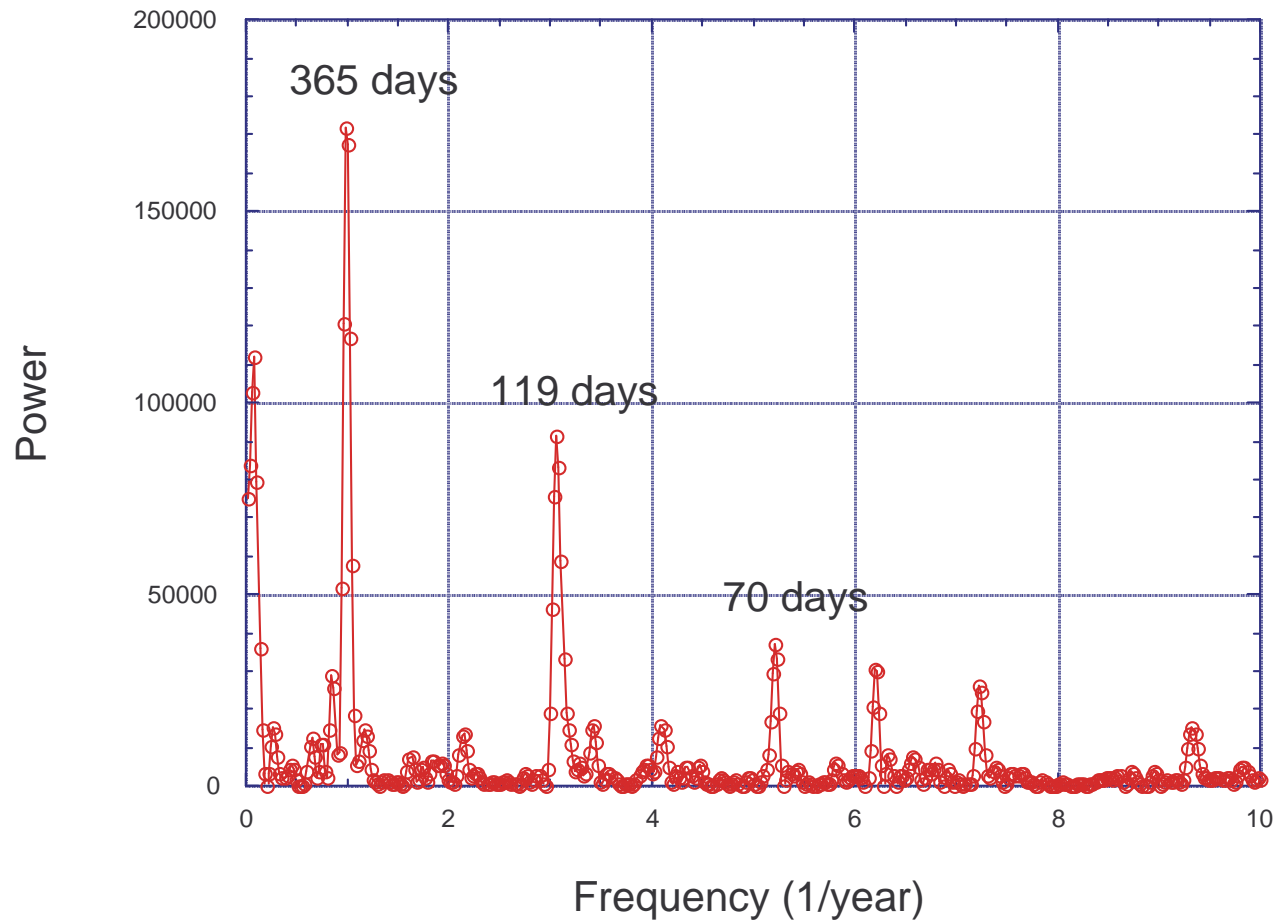
Current accuracy 0.7-1.2 cm / weekly positions

Plans for the future

- research activity (satellite antenna patterns)

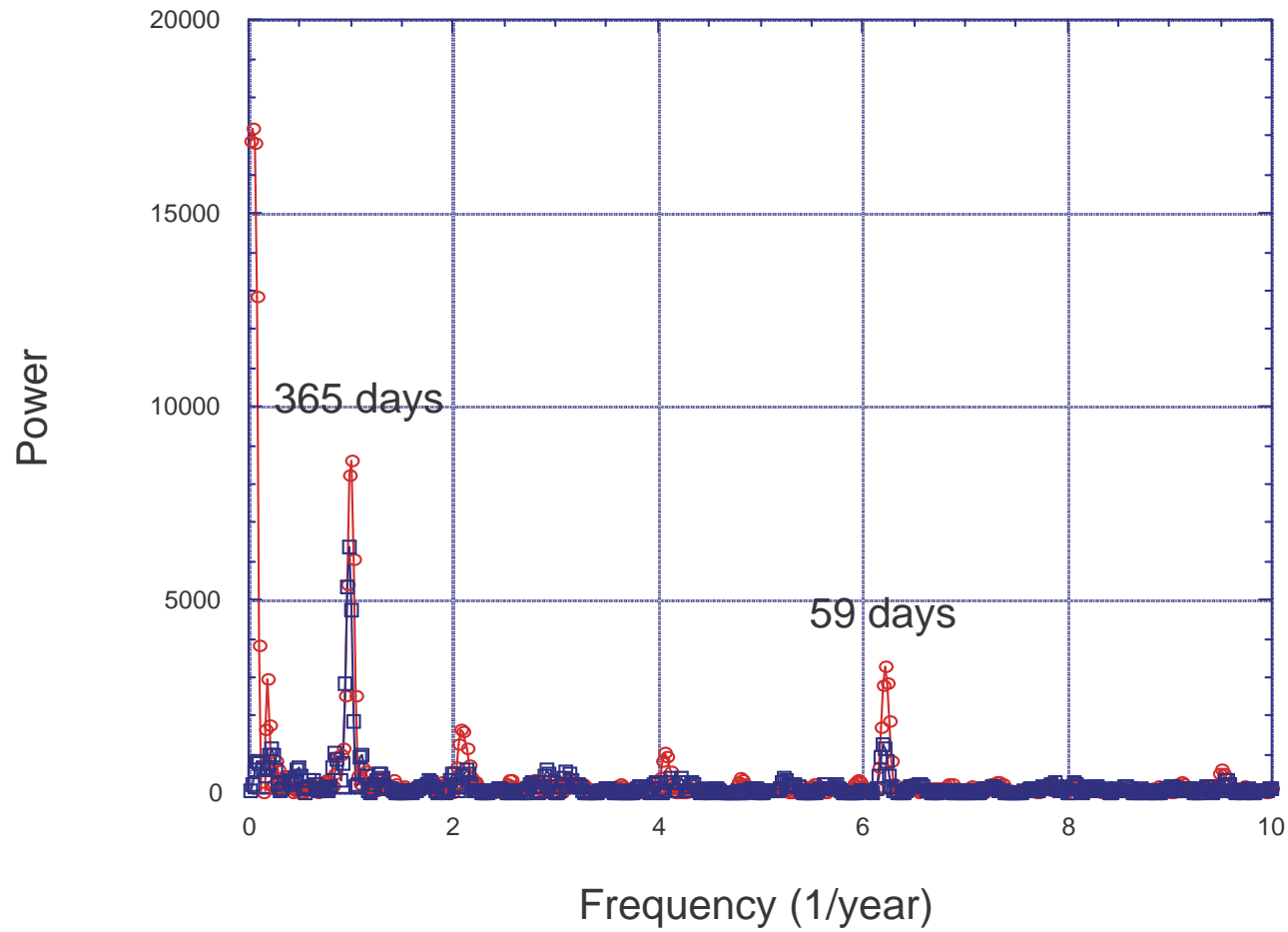
—○— TZ

Periodogram geocenter TZ-component





Periodogramm Geocenter TX and TY-components



—○— Scale

Periodogramm DORIS IGN/JPL scale vs ITRF2000

