

Astronomical League Earth Orbiting Satellite Observers Club Observation Report Form, Version 1.3

Observers Name Mike Hobbs

Date of Observation 6/29/05

Satellite Name ISS
Element Set Satellite ID ISS

Date of Element Set Used 6/28/05

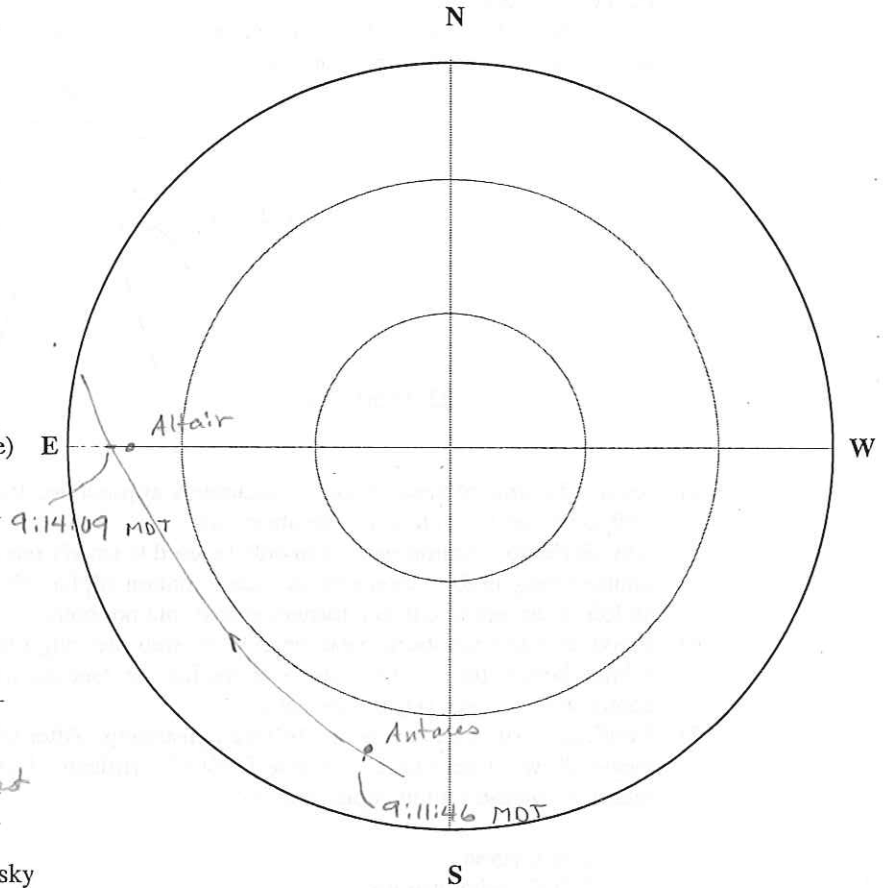
Location of Observer
Latitude 39.9° N
(use decimal degrees only)

Longitude 105.1° W
(use decimal degrees only, east is negative)

Elevation 5000 ft
(specify feet or meters)

Instrument Used (check one)
 Unaided Eye
 Binoculars
 Telescope - specify aperture _____

Comments Very bright. Sky still lit so only could see brighted stars. 1st Pass



Draw or sketch the path of the satellite across the sky relative to bright stars. The outer ring represents the horizon.

IMPORTANT - Place time "hacks" on at least two locations on the satellite track, including the *timezone* and *daylight/standard time references*, for example 01:20:50 UTC, 19:30:40 EST, 23:10:59 PDT, etc.).

Observation Number (1-28) 24

Observation Objective (subject to change - check only one task per observation)

Active Payload (4)	1 _____	Manned Spaceflight (2)	STS _____	Multinational (4)	Russia _____
	2 _____		ISS _____		China _____
	3 _____		Other _____		Japan _____
	4 _____				Brazil _____
					Other _____

Rocket Bodies (4)	1 _____	Iridium Flares (4)	1 _____
	2 _____		2 _____
	3 _____		3 _____
	4 _____		4 _____ (one during daylight or civil twilight hours)

Multipass (2)	1 a _____ b _____	Formation (2)	1 a _____ b _____	Aged Elsets (2)	1 a _____ b _____
	2 a <u>24</u> b _____		2 a _____ b _____		2 a _____ b _____

Astronomical League Earth Orbiting Satellite Observers Club Observation Report Form, Version 1.3

Observers Name Mike Hotka

Date of Observation 6/29/05

Satellite Name and
Element Set Satellite ID ISS

Date of Element Set Used 6/28/05

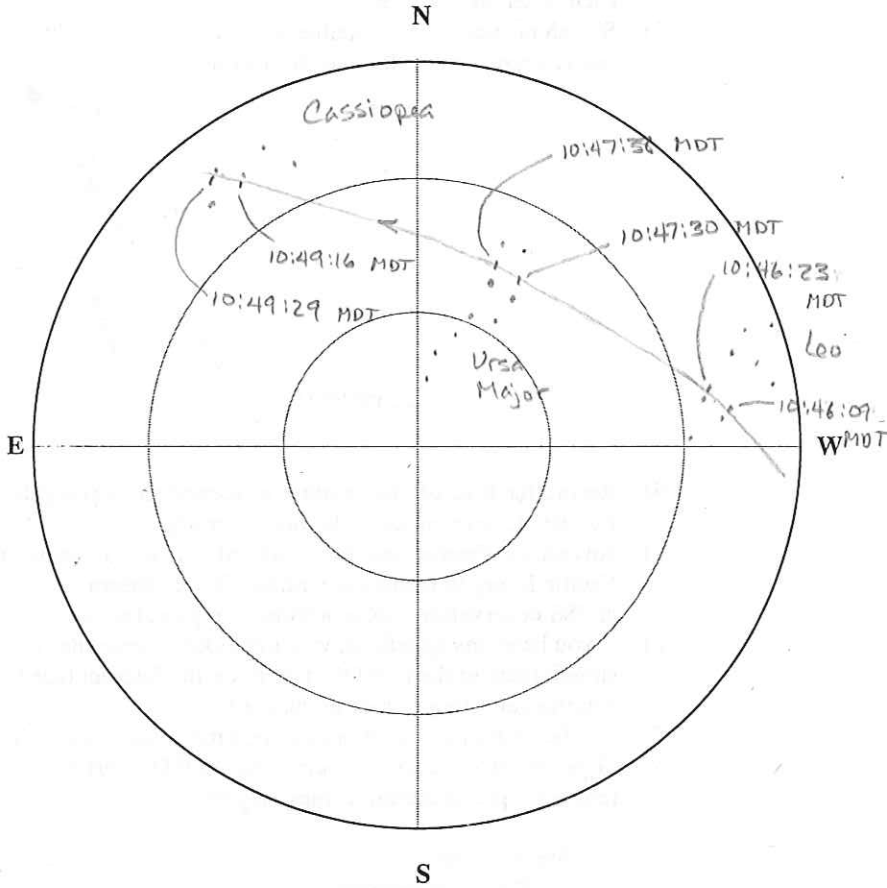
Location of Observer
Latitude 39.9°N
(use decimal degrees only)

Longitude 105.1°W
(use decimal degrees only, east is negative)

Elevation 5000 ft
(specify feet or meters)

Instrument Used (check one)
 Unaided Eye
 Binoculars
 Telescope - specify aperture _____

Comments 2nd Pass. Not as bright as 1st Pass yet bright.



Draw or sketch the path of the satellite across the sky relative to bright stars. The outer ring represents the horizon.

IMPORTANT - Place time "hacks" on at least two locations on the satellite track, including the timezone and daylight/standard time references, for example 01:20:50 UTC, 19:30:40 EST, 23:10:59 PDT, etc.).

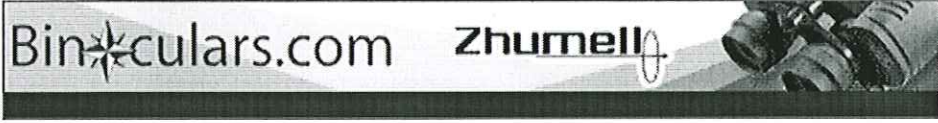
Observation Number (1-28) 25

Observation Objective (subject to change - check only one task per observation)

Active Payload (4)	1 _____	Manned Spaceflight (2)	1 _____	Multinational (4)	1 _____
	2 _____	STS	2 _____	Russia	2 _____
	3 _____	ISS	3 _____	China	3 _____
	4 _____	Other	4 _____	Japan	4 _____
				Brazil	5 _____
				Other	6 _____
Rocket Bodies (4)	1 _____	Iridium Flares (4)	1 _____		
	2 _____		2 _____		
	3 _____		3 _____		
	4 _____		4 _____		

(one during daylight or civil twilight hours)

Multipass (2)	1 a _____ b _____	Formation (2)	1 a _____ b _____	Aged Elsets (2)	1 a _____ b _____
	2 a _____ b <u>25</u>		2 a _____ b _____		2 a _____ b _____



Ads by Goood

Satellite View
Zoom in, tilt world in 3D Earth for free earth.google.com

Visible Pass Details

[| Home](#) | [Info](#) | [Orbit](#) | [Help](#) |

Ground Track

NEW! Click here for a view of the ground track during the pass, centred on your location.

Whole Sky Chart

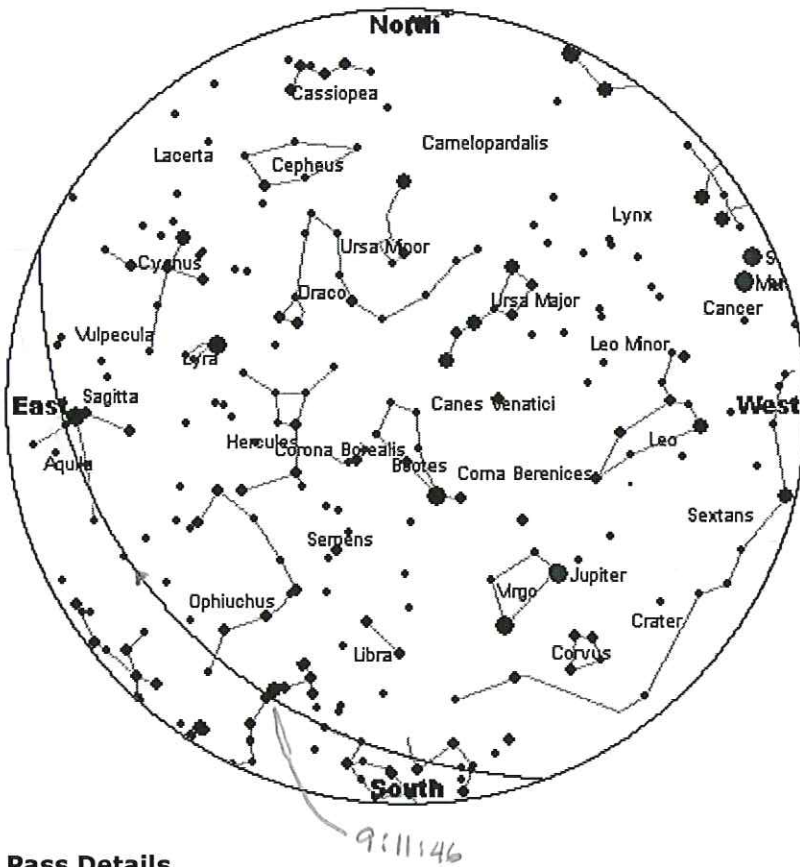
This chart shows the path of the satellite across the sky. Please note that East and West are **NOT** the "wrong way round" if you hold the chart over your head to correspond to the view of the sky.

Dish Network
\$19.99/mo
Over 60 channels
\$19.99/mo installed on
www.dishnetwork.com

Dish Network
\$19.99/mo
HBO & Showtime
3 Months! Free Equipment
www.ValueDis.com

Weather Station
Full colour image reception analysis
prapro.com

Used Telescopes
Watch the latest auctions at Overstock.com Auctions.Over.com



9:14:09

9:11:46

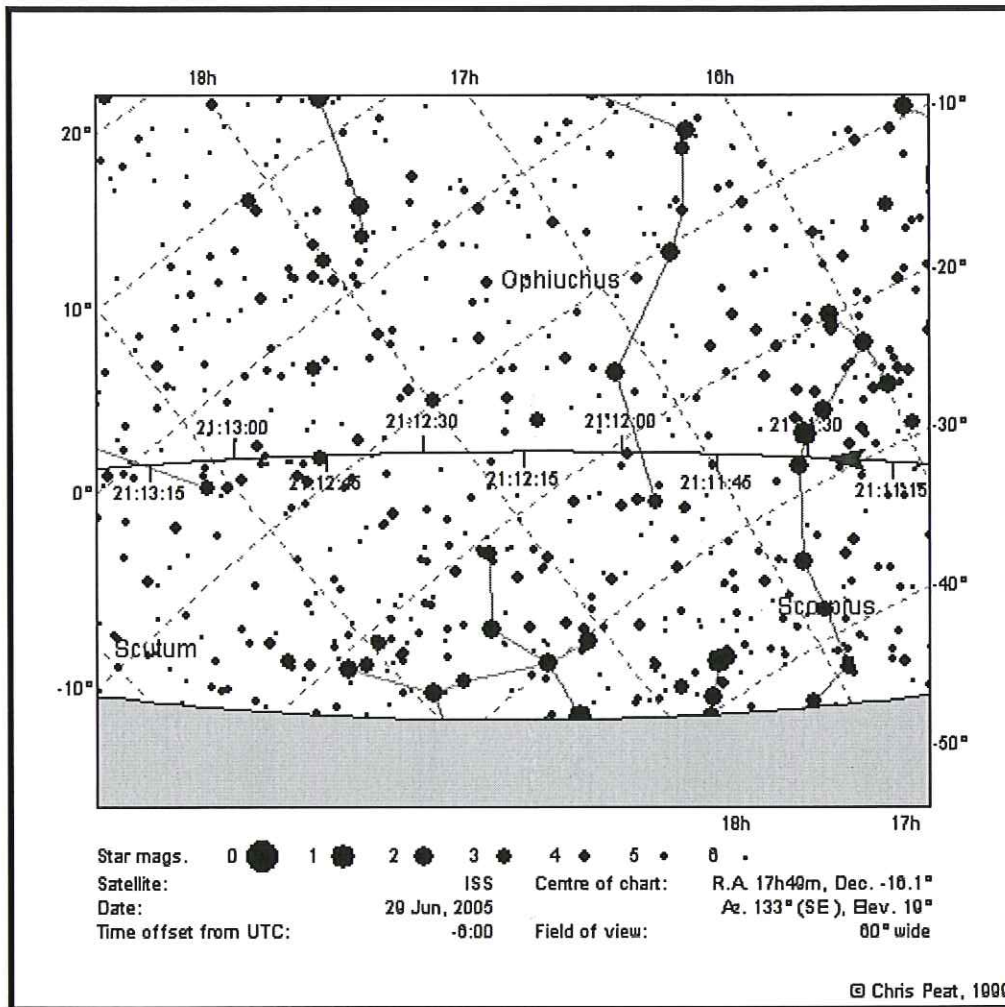
Pass Details

Date: Wednesday, 29 June, 2005
 Satellite: ISS
 Observer's Location: Broomfield (39.9210°N, 105.0860°W)
 Local Time: Mountain Daylight Time (GMT - 6:00)
 Orbit: 347 x 352 km, 51.6° (Epoch 28 Jun)
 Sun altitude at time of maximum pass altitude: -7.0°

Event	Time	Altitude	Azimuth	Distance (km)
Rises above horizon	21:07:46	-0°	200° (SSW)	2,136

Reaches 10° altitude	21:10:05	10°	182° (S)	1,304
Maximum altitude	21:12:17	19°	133° (SE)	896
Drops below 10° altitude	21:14:29	10°	84° (E)	1,313
Sets	21:16:49	0°	66° (ENE)	2,157

Detailed Star Chart

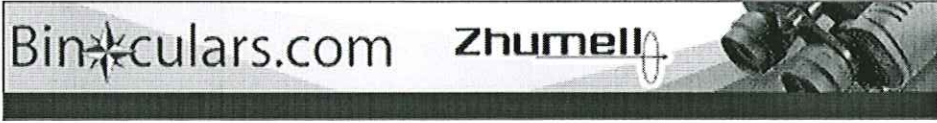


Change chart size (500 to 1600 pixels)

Click anywhere within the inner chart to zoom in on that region.
 Click in the border region to get a new chart at the same resolution, but with the centre point moved in that direction.
 The chart is oriented such that the local zenith is towards the top.
 Click here for more info and help on using the charts.

Developed and maintained by Chris Peat, Heavens-Above GmbH
Please read the updated FAQ before sending e-mail.

Hosted by  DLR/GSOC



Ads by Goor

Satellite VI
Explore wo
satellite ima
Google Ear
earth.google.c

Visible Pass Details

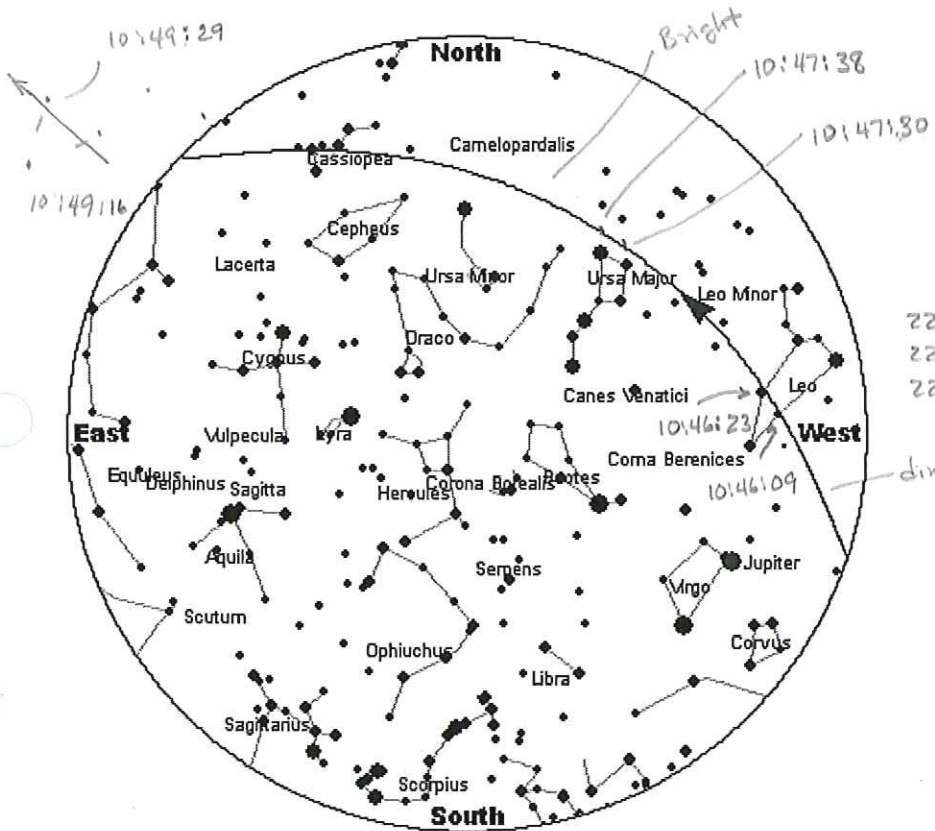
| Home | Info. | Orbit | Help |

Ground Track

NEW! Click here for a view of the ground track during the pass, centred on your location.

Whole Sky Chart

This chart show the path of the satellite across the sky. Please note that East and West are **NOT** the "wrong way round" if you hold the chart over your head to correspond to the view of the sky.



Dish Netw:
\$19.99/mo
Over 60 ch
\$19.99/mo
installed on
www.dishnetw

Dish Netw:
\$19.99/mo
HBO & Shc
3 Months! f
- Free Equi
www.ValueDis

Mag 0.9
22:44:40 10° W
22:47:21 35° WNW
22:50:08 10° NE

Weather s:
Full colour
Image rece
analysis
prapro.com

Used Tele:
Find Telesc
Binoculars
Overstock.i
Bid Now!
Auctions.Over

Not as bright as
1st Pass.

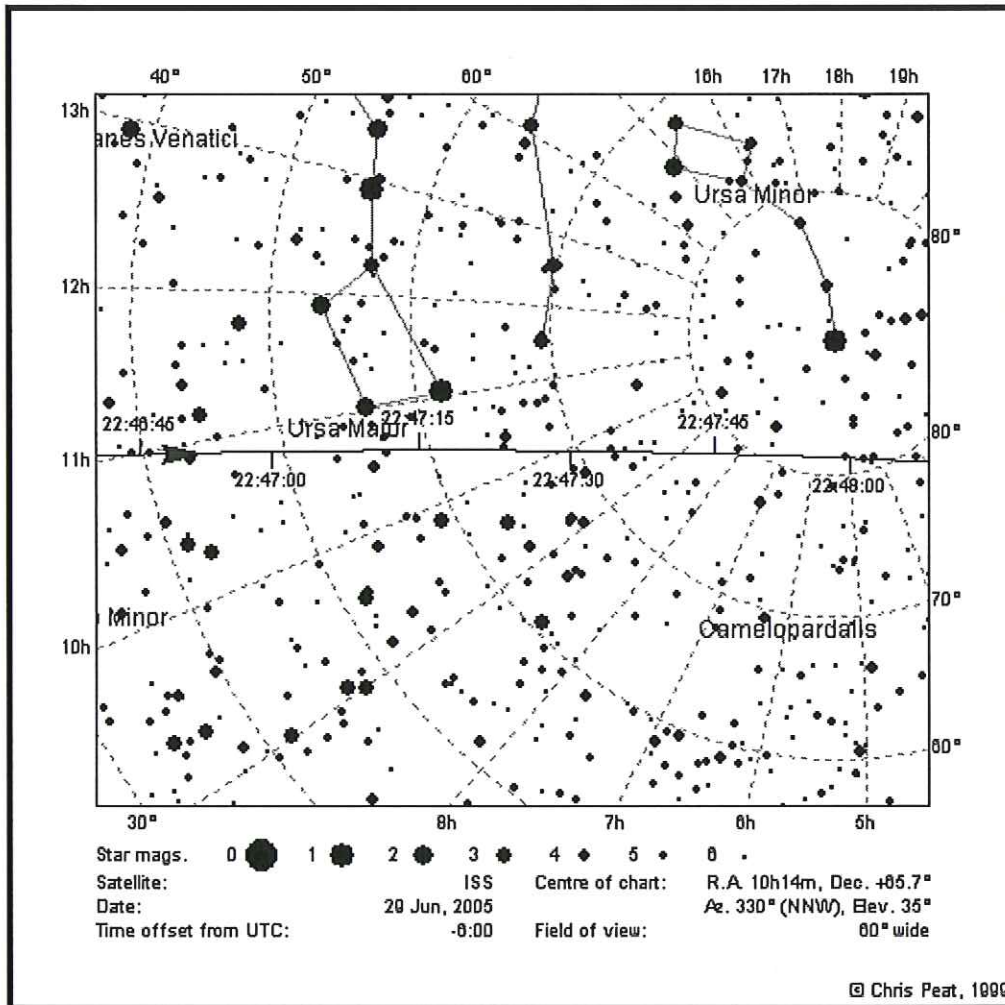
Pass Details

Date: Wednesday, 29 June, 2005
Satellite: ISS
Observer's Location: Broomfield (39.9210°N, 105.0860°W)
Local Time: Mountain Daylight Time (GMT - 6:00)
Orbit: 347 x 352 km, 51.6° (Epoch 28 Jun)
Sun altitude at time of maximum pass altitude: -19.3°

Event	Time	Altitude	Azimuth	Distance (km)
Rises above horizon	22:42:34	0°	250° (WSW)	2,144

Reaches 10° altitude	22:44:40	10°	260° (W)	1,310
Maximum altitude	22:47:24	35°	330° (NNW)	585
Drops below 10° altitude	22:50:08	10°	38° (NE)	1,319
Sets	22:52:15	0°	48° (NE)	2,162

Detailed Star Chart

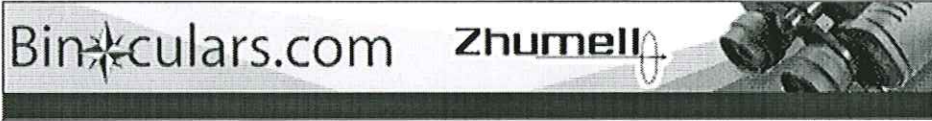


Change chart size (500 to 1600 pixels)

Click anywhere within the inner chart to zoom in on that region.
 Click in the border region to get a new chart at the same resolution, but with the centre point moved in that direction.
 The chart is oriented such that the local zenith is towards the top.
 Click here for more info and help on using the charts.

Developed and maintained by Chris Peat, Heavens-Above GmbH
Please read the updated FAQ before sending e-mail.





Ads by Gooc

Used Teles
Watch the \$
Auctions at
Overstock.c
Auctions.Overs

ISS - Visible Passes

[| Home](#) | [| Info.](#) | [| Orbit](#) | [| Prev.](#) | [| Next](#) | [| Help](#) |

Search Period Start: 12:00 Wednesday, 29 June, 2005
 Search Period End: 12:00 Saturday, 09 July, 2005
 Observer's Location: Broomfield (39.9210°N, 105.0860°W)
 Local Time: Mountain Daylight Time (GMT - 6:00)
 Orbit: 347 x 352 km, 51.6° (Epoch 28 Jun)

Telescope:
Savings
Low prices
brands. Cor
View rating:
www.astronom

NEW! Click on the date to get a star chart and other pass details.

Date	Mag	Starts			Max. Altitude			Ends		
		Time	Alt.	Az.	Time	Alt.	Az.	Time	Alt.	Az.
29 Jun	0.6	21:10:05	10	S	21:12:17	19	SE	21:14:29	10	E
29 Jun	0.9	22:44:40	10	W	22:47:21	35	NNW	22:50:08	10	NE
30 Jun	3.0	00:22:32	10	NNW	00:23:20	11	NNW	00:24:09	10	N
30 Jun	1.7	03:33:15	10	NNW	03:35:48	25	NNE	03:38:19	10	E
30 Jun	-1.0	21:34:44	10	SW	21:37:37	74	SE	21:40:34	10	NE
30 Jun	2.4	23:11:12	10	WNW	23:13:12	17	NNW	23:15:13	10	NNE
01 Jul	2.6	02:24:04	10	NNW	02:25:45	14	NNE	02:27:27	10	NE
01 Jul	-0.7	03:58:31	10	NW	04:01:27	74	NE	04:04:23	10	ESE
01 Jul	1.1	22:00:32	10	W	22:03:16	33	NNW	22:05:56	10	NE
01 Jul	3.1	23:38:33	10	NNW	23:39:12	10	NNW	23:39:51	10	N
02 Jul	1.4	02:49:02	10	NNW	02:51:37	27	NNE	02:54:12	10	E
02 Jul	0.1	04:24:17	10	WNW	04:26:53	28	SW	04:29:27	10	SSE
02 Jul	2.5	22:27:07	10	WNW	22:29:01	16	NNW	22:30:57	10	NNE
03 Jul	2.5	01:39:48	10	NNW	01:41:35	15	NNE	01:42:36	13	NE
03 Jul	1.4	21:16:21	10	W	21:19:00	30	NNW	21:21:40	10	NE
03 Jul	3.0	22:54:34	10	NNW	22:55:00	10	N	22:55:26	10	N
04 Jul	3.0	00:31:10	10	N	00:31:22	10	N	00:31:34	10	NNE
04 Jul	2.5	02:04:46	10	NW	02:04:48	10	NW	02:04:48	10	NW
04 Jul	2.6	21:42:58	10	WNW	21:44:47	15	NNW	21:46:38	10	NNE
05 Jul	2.5	00:55:29	10	NNW	00:56:39	14	N	00:56:39	14	N

Weather sa
Full colour I
Image rece
analysis
prapro.com

Live Space
See the Wc
Universe C
Professiona
www.slooh.com

The Hubbl
Did the Uni
From - God
the Latest F
www.Celestialf

05 Jul	2.8	23:46:39	10	N	23:47:07	10	N	23:47:36	10	NNE
06 Jul	2.6	20:58:46	10	NW	21:00:31	15	NNW	21:02:15	10	NNE
07 Jul	2.3	00:11:07	10	NNW	00:12:33	15	N	00:12:33	15	N
07 Jul	2.6	23:02:10	10	N	23:02:49	11	NNE	23:03:29	10	NNE
08 Jul	2.6	00:36:04	10	NW	00:36:24	12	NW	00:36:24	12	NW
08 Jul	1.9	23:26:42	10	NNW	23:28:43	17	NNE	23:28:49	17	NNE

Developed and maintained by Chris Peat, Heavens-Above GmbH
Please read the updated FAQ before sending e-mail.

Hosted
by  DLR/GSOC

Astronomical League Earth Orbiting Satellite Observers Club Observation Report Form, Version 1.3

Observers Name Mike Hotter

Date of Observation 7/3/05

Satellite Name and
Element Set Satellite ID HST

Date of Element Set Used 6/21/05

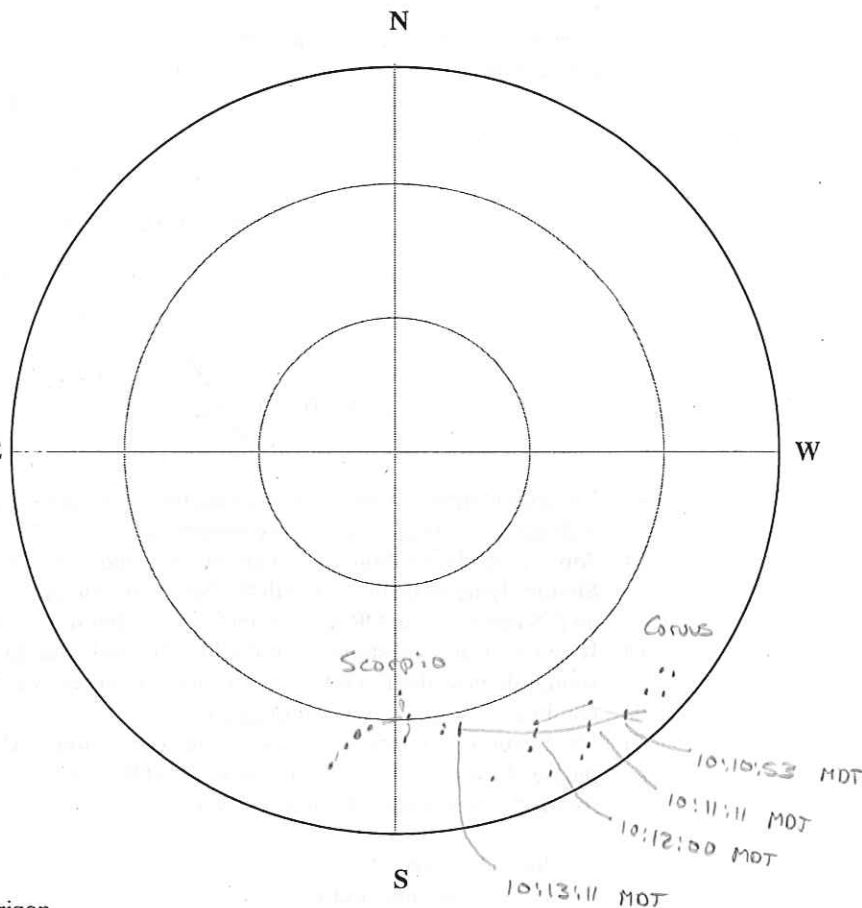
Location of Observer
Latitude 39.6°N
(use decimal degrees only)

Longitude 105.6°W
(use decimal degrees only, east is negative) E

Elevation 14,124 ft
(specify feet or meters)

Instrument Used (check one)
 Unaided Eye
 Binoculars
 Telescope - specify aperture _____

Comments Very bright, 1st time
I ever saw this.



Draw or sketch the path of the satellite across the sky relative to bright stars. The outer ring represents the horizon.

IMPORTANT - Place time "hacks" on at least two locations on the satellite track, including the *timezone* and *daylight/standard time references*, for example 01:20:50 UTC, 19:30:40 EST, 23:10:59 PDT, etc.).

Observation Number (1-28) 26

Observation Objective (subject to change - check only one task per observation)

Active Payload (4) 1 26
 2 _____
 3 _____
 4 _____

Manned Spaceflight (2)
 STS _____
 ISS _____
 Other _____

Multinational (4)
 Russia _____
 China _____
 Japan _____
 Brazil _____
 Other _____

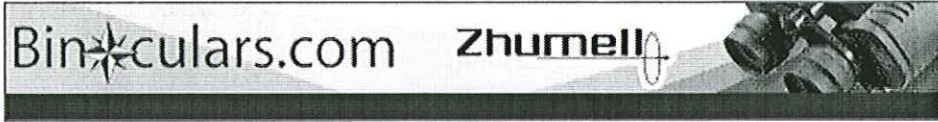
Rocket Bodies (4) 1 _____
 2 _____
 3 _____
 4 _____

Iridium Flares (4) 1 _____
 2 _____
 3 _____
 4 _____ (one during daylight or civil twilight hours)

Multipass (2) 1 a _____ b _____
 2 a _____ b _____

Formation (2) 1 a _____ b _____
 2 a _____ b _____

Aged Elsets (2) 1 a _____ b _____
 2 a _____ b _____



Ads by Google

Buy Telescopes Online
 Don't Buy a Telescope Thousands Timeshare
www.slooh.com

Visible Pass Details

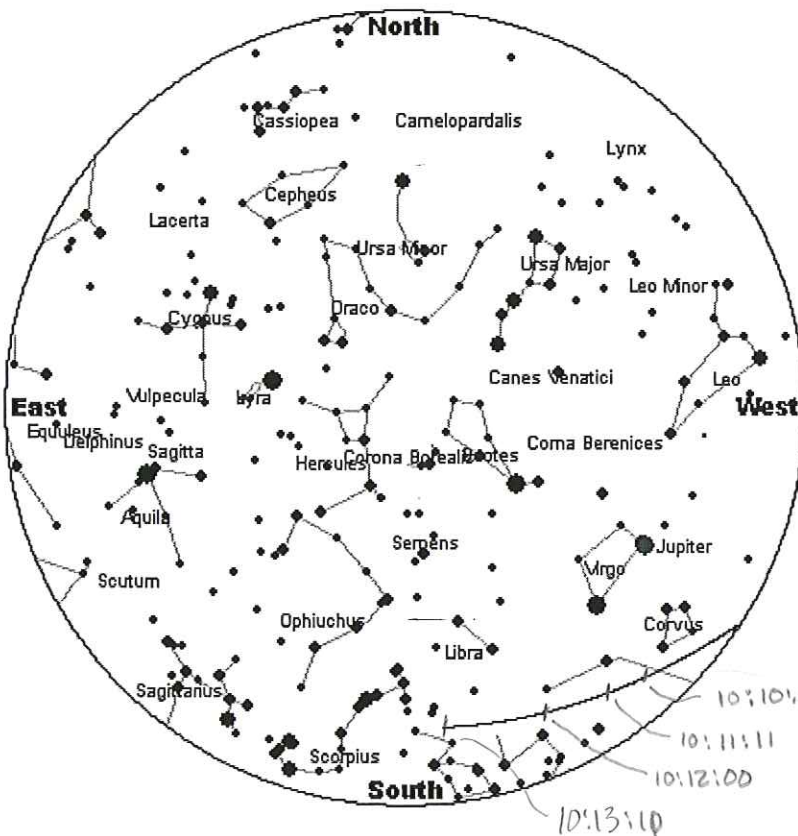
[| Home](#) | [Info](#) | [Orbit](#) | [Help](#) |

Ground Track

NEW! Click here for a view of the ground track during the pass, centred on your location.

Whole Sky Chart

This chart shows the path of the satellite across the sky. Please note that East and West are **NOT** the "wrong way round" if you hold the chart over your head to correspond to the view of the sky.



Mag 3.3
 22:10:47 10° SW
 22:13:08 17° S

Very Bright

Holiday Gift
 Find Great Hammache Free Lifetime
www.Hammac

Edmund Shop
 The Premier Hard to Find Products at
Shop.com/edn

Telescope Savings
 Low prices brands. Co View rating
www.astronom

Telescope Savings
 Find, compare Telescopes Savings
www.Shopping

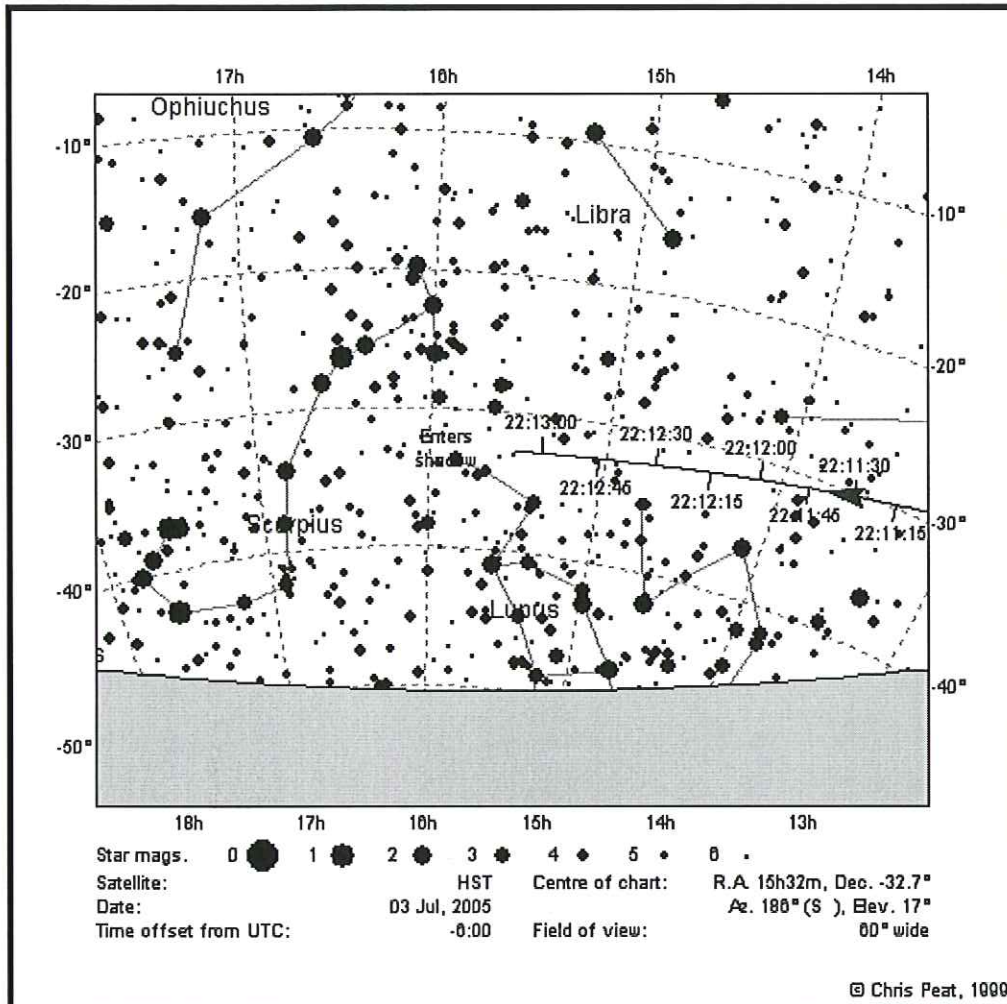
Pass Details

Date: Sunday, 03 July, 2005
 Satellite: HST
 Observer's Location: **DU Observatory** (39.5867°N, 105.6400°W)
 Local Time: Mountain Daylight Time (GMT - 6:00)
 Orbit: 565 x 570 km, 28.5° (Epoch 21 Jun)
 Sun altitude at time of maximum pass altitude: -15.5°

Event	Time	Altitude	Azimuth	Distance (km)
Rises above horizon	22:07:55	-0°	238° (WSW)	2,741

Reaches 10° altitude	22:10:47	10°	219° (SW)	1,848
Maximum altitude	22:13:08	17°	186° (S)	1,431
Enters shadow	22:13:08	17°	186° (S)	1,431

Detailed Star Chart



Change chart size

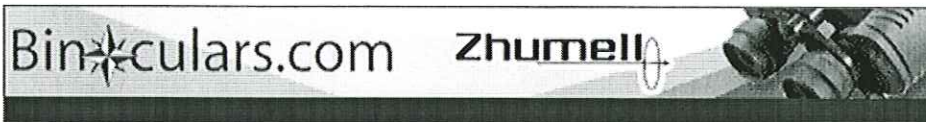
500

(500 to 1600 pixels)

Click anywhere within the inner chart to zoom in on that region.
 Click in the border region to get a new chart at the same resolution, but with the centre point moved in that direction.
 The chart is oriented such that the local zenith is towards the top.
 Click here for more info and help on using the charts.

Developed and maintained by Chris Peat, Heavens-Above GmbH
Please read the updated FAQ before sending e-mail.

Hosted
 by  DLR/GSOC



Ads by Goood

Live Space
See the Wc
Universe C
Professiona
www.slooh.com

HST - Visible Passes

[| Home](#) | [| Info.](#) | [| Orbit](#) | [| Prev.](#) | [| Next](#) | [| Help](#) |

Search Period Start: 12:00 Sunday, 03 July, 2005
 Search Period End: 12:00 Wednesday, 13 July, 2005
 Observer's Location: DU Observatory (39.5867°N, 105.6400°W)
 Local Time: Mountain Daylight Time (GMT - 6:00)
 Orbit: 565 x 570 km, 28.5° (Epoch 21 Jun)

Holiday Gi
Find Great
Hammache
Free Lifetim
www.Hammacl

NEW! Click on the date to get a star chart and other pass details.

Date	Mag	Starts			Max. Altitude			Ends		
		Time	Alt.	Az.	Time	Alt.	Az.	Time	Alt.	Az.
03 Jul	3.3	22:10:47	10	SW	22:13:08	17	S	22:13:08	17	S
04 Jul	3.3	22:09:37	10	SW	22:12:22	18	S	22:12:22	18	S
05 Jul	3.3	22:08:33	10	SW	22:11:28	18	S	22:11:28	18	S
06 Jul	3.4	22:07:36	10	SW	22:10:24	17	S	22:10:30	17	S
07 Jul	3.5	22:06:47	10	SW	22:09:17	15	S	22:09:28	15	S
08 Jul	3.7	22:06:10	10	SW	22:08:10	13	SSW	22:08:24	13	S
09 Jul	4.0	22:06:12	10	SSW	22:07:01	10	SSW	22:07:19	10	SSW

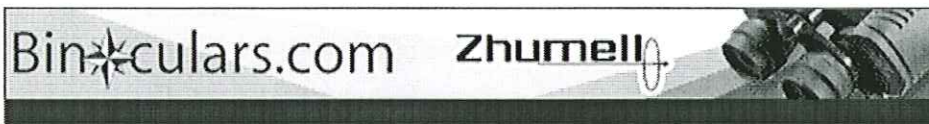
20-50% Off
Bushnell, M
Swarovski,
Celestron T
OpticsPlanet.n

The Surfac
Soho revea
a solid surfa
conducts el
www.thesurfac

5GB Web t
3.95/mo
1800 Suppt
Money Bac
Fees, 99.9%
www.canaca.c

Developed and maintained by Chris Peat, Heavens-Above GmbH
Please read the updated FAQ before sending e-mail.





Ads by Goood

Telescope
1000's of Telescopes in stock. Discount up to 60% off.
www.Telescope.com

HST - Visible Passes

[| Home](#) | [| Info.](#) | [| Orbit](#) | [| Prev.](#) | [| Next](#) | [| Help](#) |

Search Period Start: 12:00 Sunday, 03 July, 2005
 Search Period End: 12:00 Wednesday, 13 July, 2005
 Observer's Location: Broomfield (39.9210°N, 105.0860°W)
 Local Time: Mountain Daylight Time (GMT - 6:00)
 Orbit: 565 x 570 km, 28.5° (Epoch 21 Jun)

Space Stat
The original winning 3D game. Free
www.ShortHike.com

NEW! Click on the date to get a star chart and other pass details.

Date	Mag	Starts			Max. Altitude			Ends		
		Time	Alt.	Az.	Time	Alt.	Az.	Time	Alt.	Az.
03 Jul	3.4	22:11:00	10	SW	22:13:08	17	S	22:13:08	17	S
04 Jul	3.3	22:09:50	10	SW	22:12:22	17	S	22:12:22	17	S
05 Jul	3.4	22:08:47	10	SW	22:11:28	17	S	22:11:28	17	S
06 Jul	3.4	22:07:51	10	SW	22:10:30	16	S	22:10:30	16	S
07 Jul	3.6	22:07:03	10	SW	22:09:23	14	S	22:09:28	14	S
08 Jul	3.8	22:06:31	10	SW	22:08:15	12	SSW	22:08:24	12	SSW

Telescope: Astronomi
Premier US Celestron C of friendly e
www.astronom.com

Live Space
See the Wc Universe C
Professiona
www.slooh.com

Holiday Gift
Find Great Hammache
Free Lifetime
www.Hammach.com

Developed and maintained by Chris Peat, Heavens-Above GmbH
Please read the updated FAQ before sending e-mail.



Astronomical League Earth Orbiting Satellite Observers Club Observation Report Form, Version 1.3

Observers Name Mike Hotleg

Date of Observation 7/9/05

Satellite Name and
Element Set Satellite ID Iridium 43

Date of Element Set Used 7/8/05

Location of Observer
Latitude 39.886° N
(use decimal degrees only)

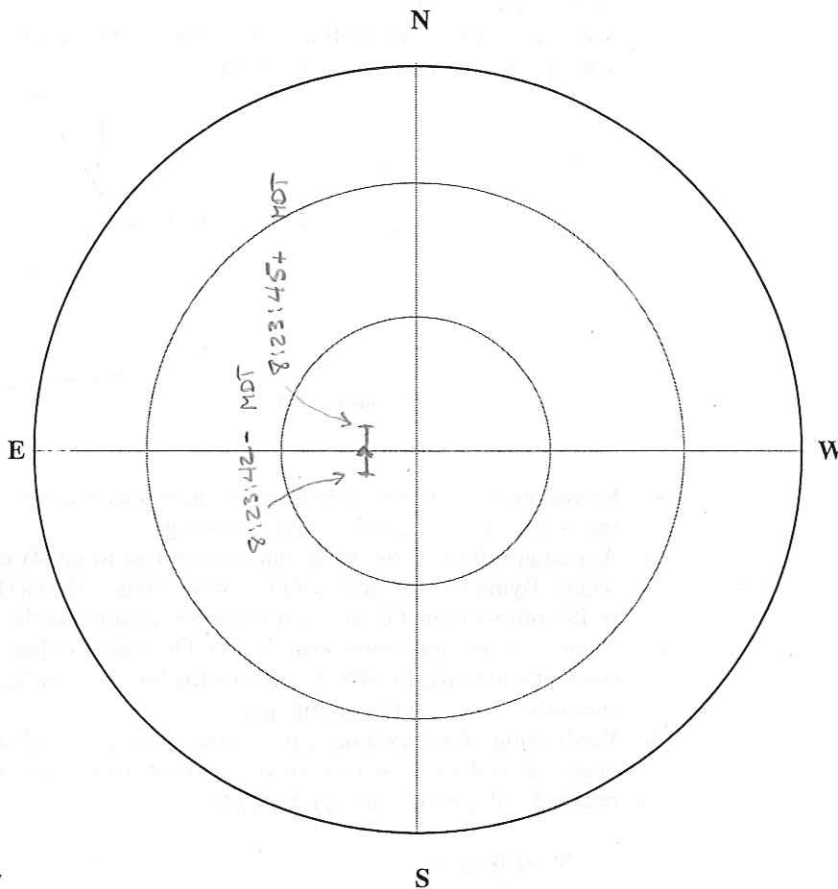
Longitude 104.987° W
(use decimal degrees only, east is negative)

Elevation 5000 ft
(specify feet or meters)

Instrument Used (check one)
 Unaided Eye
 Binoculars
 Telescope - specify aperture _____

Comments After several attempts,
finally saw daytime flare.
Very bright & long

Draw or sketch the path of the satellite across the sky relative to bright stars. The outer ring represents the horizon.



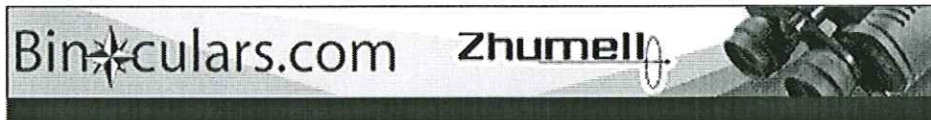
IMPORTANT - Place time "hacks" on at least two locations on the satellite track, including the *timezone* and *daylight/standard time references*, for example 01:20:50 UTC, 19:30:40 EST, 23:10:59 PDT, etc.).

Observation Number (1-28) 27

Observation Objective (subject to change - check only one task per observation)

Active Payload (4)	1 _____	Manned Spaceflight (2)	STS _____	Multinational (4)	Russia _____
	2 _____		ISS _____		China _____
	3 _____		Other _____		Japan _____
	4 _____				Brazil _____
					Other _____
Rocket Bodies (4)	1 _____	Iridium Flares (4)	1 _____		
	2 _____		2 _____		
	3 _____		3 _____		
	4 _____		4 _____ (one during daylight or civil twilight hours)		

Multipass (2)	1 a _____ b _____	Formation (2)	1 a _____ b _____	Aged Elsets (2)	1 a _____ b _____
	2 a _____ b _____		2 a _____ b _____		2 a _____ b _____



Ads I

Dig For Sele All C www

Daytime Iridium Flares

| Home | Prev. | Next | Help |

5G 3.9 180 Mor Fee www

This is a new page giving predictions of daytime Iridium flares. For more information, please click on the Help link at the top of this page.

Search Period Start: 14:58, Wednesday, 06 July, 2005
 Search Period End: 14:58, Wednesday, 13 July, 2005
 Observer's Location: Northglenn (39.8860°N, 104.9870°W)
 Local Time: Mountain Daylight Time (GMT - 6:00)
 Magnitude Cut-off: -6

Saturday

The Soh a sc con www

Date	Local Time	Intensity (Mag.)	Flare position		Flare centre		Sun			Satellite
			Alt.	Azimuth	Distance	Mag	Alt.	Azimuth	From flare	
09 Jul	20:23:42	-8.4	76°	89° (E)	0.8 km (W)	-8.5	0°	299° (WNW)	102°	Iridium 43

Ana You of y nee www

Developed and maintained by Chris Peat, Heavens-Above GmbH
Please read the updated FAQ before sending e-mail.



SA(We carr astr www



Astronomical League Earth Orbiting Satellite Observers Club Observation Report Form, Version 1.3

Observers Name Mike Hotka

Date of Observation 7/14/05

Satellite Name and
Element Set Satellite ID Jason / Topex

Date of Element Set Used 7/12/05

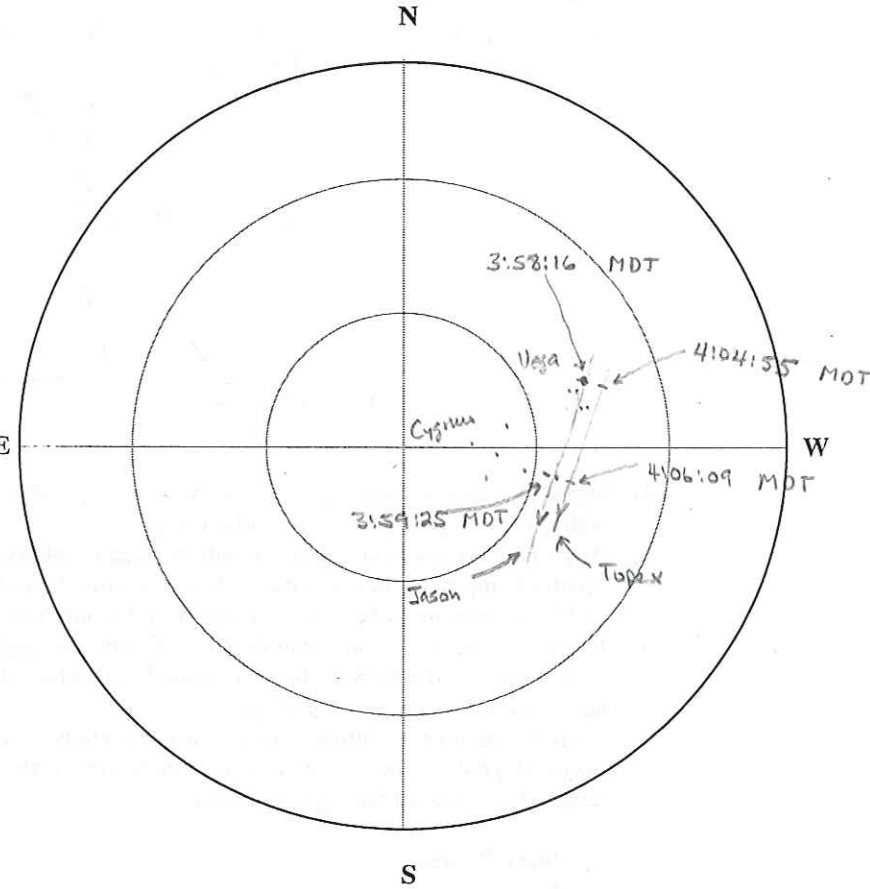
Location of Observer
Latitude 39.9°N
(use decimal degrees only)

Longitude 105.1°W
(use decimal degrees only, east is negative)

Elevation 5000 ft
(specify feet or meters)

Instrument Used (check one)
 Unaided Eye
 Binoculars 20x80
 Telescope - specify aperture _____

Comments _____



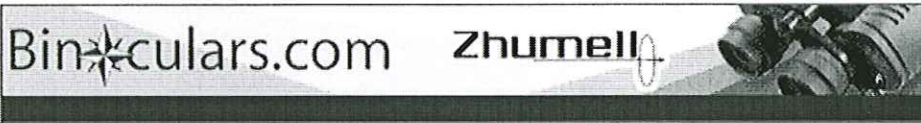
Draw or sketch the path of the satellite across the sky relative to bright stars. The outer ring represents the horizon.

IMPORTANT - Place time "hacks" on at least two locations on the satellite track, including the timezone and daylight/standard time references, for example 01:20:50 UTC, 19:30:40 EST, 23:10:59 PDT, etc.).

Observation Number (1-28) 28

Observation Objective (subject to change - check only one task per observation)

Active Payload (4)	1 _____	Manned Spaceflight (2)	STS _____	Multinational (4)	Russia _____
	2 _____		ISS _____		China _____
	3 _____		Other _____		Japan _____
	4 _____				Brazil _____
					Other _____
Rocket Bodies (4)	1 _____	Iridium Flares (4)	1 _____		
	2 _____		2 _____		
	3 _____		3 _____		
	4 _____		4 _____ (one during daylight or civil twilight hours)		
Multipass (2)	1 a _____ b _____	Formation (2)	1 a _____ b _____	Aged Elsets (2)	1 a _____ b _____
	2 a _____ b _____		2 a <u>28</u> b <u>28</u>		2 a _____ b _____



Ads by Google

Amateur S.
20th Amsat
Colloquium
Uni. of Surr
www.uk.amsat

JASON - Visible Passes

[| Home](#) | [| Info.](#) | [| Orbit](#) | [| Prev.](#) | [| Next](#) | [| Help](#) |

Search Period Start: 12:00 Wednesday, 13 July, 2005
 Search Period End: 12:00 Saturday, 23 July, 2005
 Observer's Location: Broomfield (39.9210°N, 105.0860°W)
 Local Time: Mountain Daylight Time (GMT - 6:00)
 Orbit: 1,331 x 1,344 km, 66.0° (Epoch 12 Jul)

Digital Can
For Telesc
Selection F.
All Credit C
www.DigitalCa

NEW! Click on the date to get a star chart and other pass details.

Date	Mag	Starts			Max. Altitude			Ends		
		Time	Alt.	Az.	Time	Alt.	Az.	Time	Alt.	Az.
13 Jul	?	22:03:21	10	NNW	22:04:35	10	NNW	22:05:49	10	N
14 Jul	?	00:01:51	10	N	00:05:16	13	NNE	00:08:39	10	NE
14 Jul	?	01:56:26	10	NNW	02:04:01	38	NE	02:11:32	10	ESE
14 Jul	?	03:52:15	10	NW	04:00:11	54	WSW	04:08:03	10	S
15 Jul	?	00:23:58	10	N	00:29:02	17	NNE	00:34:04	10	ENE
15 Jul	?	02:18:51	10	NNW	02:26:57	57	NE	02:35:00	10	SE
15 Jul	?	04:15:24	10	NW	04:22:27	33	WSW	04:29:29	10	SSW
16 Jul	?	00:46:11	10	NNW	00:52:33	24	NE	00:58:52	10	E
16 Jul	?	02:41:24	10	NNW	02:49:39	86	NE	02:57:33	12	SSE
16 Jul	?	04:39:13	10	WNW	04:44:33	19	WSW	04:49:48	10	SW
16 Jul	?	21:13:58	10	NNW	21:16:06	11	NNW	21:18:14	10	N
16 Jul	?	23:14:03	10	N	23:16:48	12	NNE	23:19:33	10	NE
17 Jul	?	01:08:29	10	NNW	01:15:49	34	NE	01:23:06	10	ESE
17 Jul	?	03:04:08	10	NW	03:12:12	63	WSW	03:17:16	25	S
17 Jul	?	23:36:05	10	N	23:40:38	15	NNE	23:45:10	10	ENE
18 Jul	?	01:30:53	10	NNW	01:38:51	50	NE	01:45:13	17	ESE
18 Jul	?	03:27:09	10	NW	03:34:34	39	WSW	03:37:34	29	SSW
19 Jul	?	23:58:17	10	NNW	00:04:15	21	NE	00:10:11	10	E
19 Jul	?	01:53:23	10	NNW	02:01:38	75	ENE	02:05:51	33	SE
19 Jul	?	03:50:40	10	NW	03:56:43	23	WSW	03:58:13	22	WSW

Live Space
See the Wc
Universe C
Professiona
www.slooh.com

The Surfac
Soho revea
a solid surf
conducts el
www.thesurfac

Space tele:
Explore the
travel to the
universe, fo
www.newscien

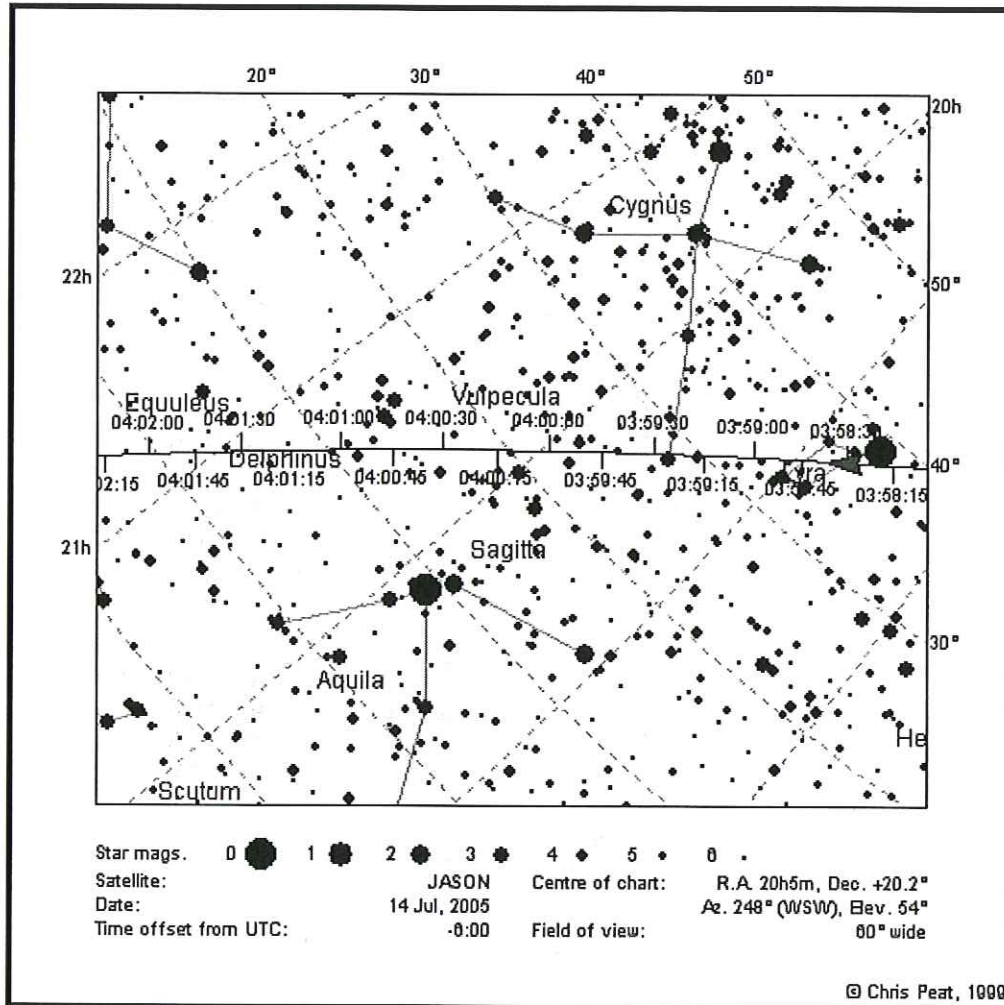
19 Jul	?	22:26:19	10	N	22:28:19	11	NNE	22:30:20	10	NNE
20 Jul	?	00:20:34	10	NNW	00:27:36	30	NE	00:34:19	11	E
20 Jul	?	02:16:03	10	NW	02:24:14	73	WSW	02:26:42	49	S
20 Jul	?	04:15:41	10	WNW	04:18:42	12	W	04:19:05	12	W
20 Jul	?	22:48:14	10	N	22:52:14	14	NNE	22:56:13	10	NE
21 Jul	?	00:42:55	10	NNW	00:50:43	44	NE	00:55:21	24	ESE
21 Jul	?	02:38:57	10	NW	02:46:39	46	WSW	02:47:44	43	SW
21 Jul	?	23:10:23	10	N	23:15:55	19	NNE	23:21:25	10	ENE
22 Jul	?	01:05:23	10	NNW	01:13:34	66	NE	01:16:30	42	ESE
22 Jul	?	03:02:15	10	NW	03:08:52	28	WSW	03:08:54	28	WSW
22 Jul	?	21:38:46	10	N	21:39:50	10	NNE	21:40:53	10	NNE
22 Jul	?	23:32:38	10	NNW	23:39:22	27	NE	23:45:21	12	E
23 Jul	?	01:27:59	10	NNW	01:36:14	83	WSW	01:37:46	64	SSE
23 Jul	?	03:26:30	10	WNW	03:30:10	15	W	03:30:10	15	W

Developed and maintained by Chris Peat, Heavens-Above GmbH
Please read the updated FAQ before sending e-mail.



Reaches 10° altitude	03:52:15	10°	321° (NW)	3,398
Maximum altitude	04:00:10	54°	248° (WSW)	1,601
Drops below 10° altitude	04:08:03	10°	174° (S)	3,374
Sets	04:10:56	-0°	170° (S)	4,338

Detailed Star Chart

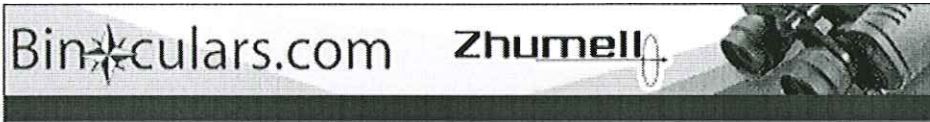


Change chart size (500 to 1600 pixels)

Click anywhere within the inner chart to zoom in on that region.
 Click in the border region to get a new chart at the same resolution, but with the centre point moved in that direction.
 The chart is oriented such that the local zenith is towards the top.
 Click here for more info and help on using the charts.

Developed and maintained by Chris Peat, Heavens-Above GmbH
Please read the updated FAQ before sending e-mail.





Ads by Google

Amateur S.
20th Amsat
Colloquium
Uni. of Surr
www.uk.amsat

Topex - Visible Passes

| Home | Info. | Orbit | Prev. | Next | Help |

Search Period Start: 12:00 Wednesday, 13 July, 2005
 Search Period End: 12:00 Saturday, 23 July, 2005
 Observer's Location: Broomfield (39.9210°N, 105.0860°W)
 Local Time: Mountain Daylight Time (GMT - 6:00)
 Orbit: 1,332 x 1,343 km, 66.0° (Epoch 12 Jul)

Digital Can
For Telesc
Selection F.
All Credit C
www.DigitalCa

NEW! Click on the date to get a star chart and other pass details.

Date	Mag	Starts			Max. Altitude			Ends		
		Time	Alt.	Az.	Time	Alt.	Az.	Time	Alt.	Az.
13 Jul	9.5	22:10:59	10	NNW	22:11:26	10	N	22:11:54	10	N
14 Jul	9.0	00:08:22	10	N	00:12:05	13	NNE	00:15:46	10	NE
14 Jul	7.6	02:03:00	10	NNW	02:10:42	41	NE	02:18:20	10	ESE
14 Jul	6.6	03:58:56	10	NW	04:06:44	49	WSW	04:14:31	10	S
15 Jul	8.7	00:30:30	10	N	00:35:48	18	NNE	00:41:05	10	ENE
15 Jul	6.9	02:25:27	10	NNW	02:33:35	61	NE	02:41:42	10	SE
15 Jul	7.2	04:22:09	10	NW	04:28:59	30	WSW	04:35:49	10	SSW
15 Jul	9.4	20:55:14	10	NW	20:59:00	13	NNW	21:02:48	10	N
16 Jul	8.3	00:52:44	10	NNW	00:59:17	25	NE	01:05:47	10	E
16 Jul	6.4	02:48:01	10	NNW	02:56:13	88	WNW	03:04:08	12	SSE
16 Jul	7.7	04:46:09	10	WNW	04:51:03	17	W	04:55:58	10	SW
16 Jul	9.4	21:21:14	10	NNW	21:22:56	11	NNW	21:24:38	10	N
16 Jul	9.0	23:20:33	10	N	23:23:37	12	NNE	23:26:42	10	NE
17 Jul	7.7	01:15:03	10	NNW	01:22:31	36	NE	01:29:55	10	ESE
17 Jul	6.5	03:10:47	10	NW	03:18:48	58	WSW	03:23:47	25	S
17 Jul	8.7	23:42:37	10	N	23:47:26	16	NNE	23:52:13	10	ENE
18 Jul	7.0	01:37:28	10	NNW	01:45:30	53	NE	01:51:43	18	SE
18 Jul	7.0	03:33:51	10	NW	03:41:06	36	WSW	03:44:03	28	SW
19 Jul	8.3	00:04:49	10	NNW	00:10:59	22	NE	00:17:07	10	E
19 Jul	6.5	01:59:59	10	NNW	02:08:14	80	NE	02:12:19	34	SE

Live Space
See the Wc
Universe C
Professiona
www.slooh.co

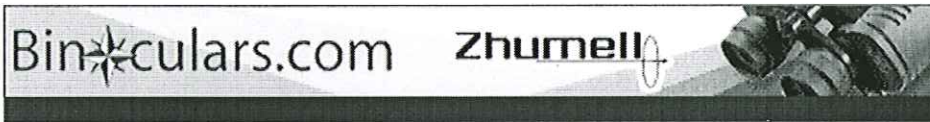
The Surface
Soho revea
a solid surfa
conducts el
www.thesurfac

Space tele:
Explore the
travel to the
universe, fo
www.newscien

19 Jul	7.6	03:57:31	10	WNW	04:03:14	21	WSW	04:04:41	20	WSW
19 Jul	9.0	22:32:46	10	N	22:35:09	11	NNE	22:37:32	10	NNE
20 Jul	7.8	00:27:07	10	NNW	00:34:18	32	NE	00:40:47	12	ESE
20 Jul	6.4	02:22:41	10	NW	02:30:48	68	WSW	02:33:10	48	S
20 Jul	8.1	04:23:17	10	W	04:25:11	11	W	04:25:33	11	W
20 Jul	8.7	22:54:45	10	N	22:59:01	15	NNE	23:03:17	10	ENE
21 Jul	7.2	00:49:29	10	NNW	00:57:22	47	NE	01:01:48	26	ESE
21 Jul	6.8	02:45:38	10	NW	02:53:11	42	WSW	02:54:11	41	SW
21 Jul	8.4	23:16:55	10	N	23:22:40	20	NE	23:28:23	10	ENE
22 Jul	6.6	01:11:58	10	NNW	01:20:11	70	ENE	01:22:56	45	SE
22 Jul	7.4	03:09:02	10	NW	03:15:20	25	WSW	03:15:20	25	WSW
22 Jul	9.0	21:45:05	10	N	21:46:39	11	NNE	21:48:13	10	NNE
22 Jul	7.9	23:39:11	10	NNW	23:46:04	28	NE	23:51:47	14	E
23 Jul	6.3	01:34:36	10	NNW	01:42:49	78	WSW	01:44:12	64	S
23 Jul	8.0	03:33:35	10	WNW	03:36:36	14	W	03:36:36	14	W

Developed and maintained by Chris Peat, Heavens-Above GmbH
Please read the updated FAQ before sending e-mail.

Hosted
by  DLR/GSOC



Ads by Google

Amateur S
20th Amsat
Colloquium
Uni. of Surr
www.uk.amsat

Visible Pass Details

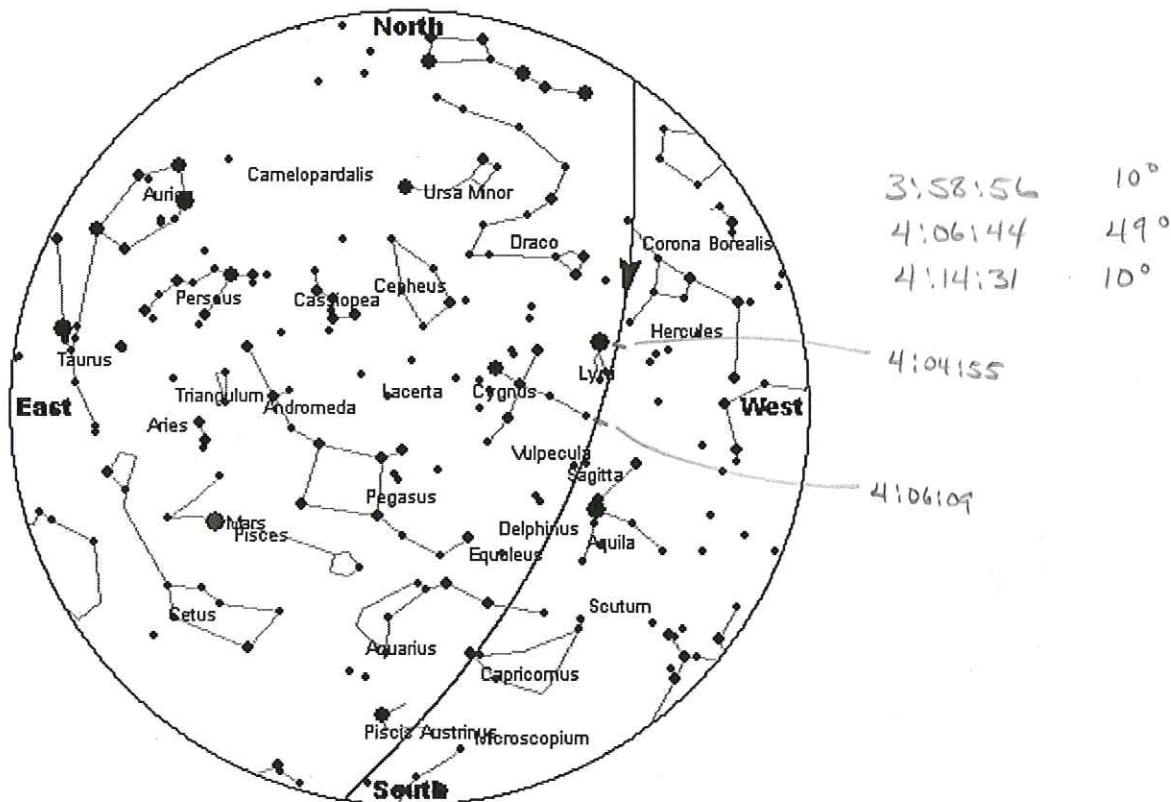
[| Home](#) | [Info.](#) | [Orbit](#) | [Help](#) |

Ground Track

NEW! Click here for a view of the ground track during the pass, centred on your location.

Whole Sky Chart

This chart show the path of the satellite across the sky. Please note that East and West are **NOT** the "wrong way round" if you hold the chart over your head to correspond to the view of the sky.



Live Space
See the W
Universe C
Profession
www.slooh.co

Space tele
Explore the
travel to the
universe, fo
www.newscier

Smartest V
Earth
4 Time Zon
Sunrise/set
Moonrise/p
Cities Pres
www.SkyTime

Astronomy
God
Was the Ur
Created? C
a Different
www.Celestial

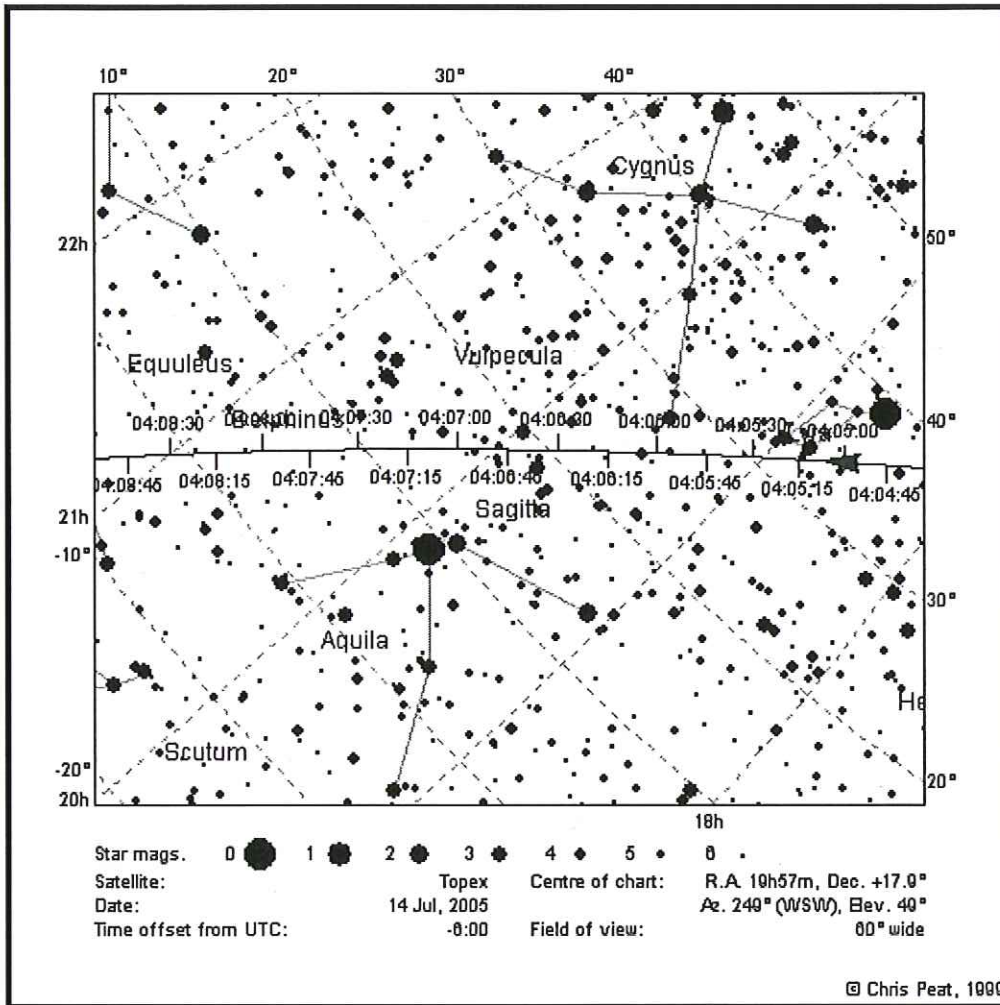
Pass Details

Date: Thursday, 14 July, 2005
 Satellite: Topex
 Observer's Location: Broomfield (39.9210°N, 105.0860°W)
 Local Time: Mountain Daylight Time (GMT - 6:00)
 Orbit: 1,332 x 1,343 km, 66.0° (Epoch 12 Jul)
 Sun altitude at time of maximum pass altitude: -15.5°

Event	Time	Altitude	Azimuth	Distance (km)
Rises above horizon	03:56:00	0°	325° (NW)	4,368

Reaches 10° altitude	03:58:56	10°	320° (NW)	3,397
Maximum altitude	04:06:44	49°	249° (WSW)	1,670
Drops below 10° altitude	04:14:31	10°	177° (S)	3,375
Sets	04:17:26	-0°	172° (S)	4,339

Detailed Star Chart

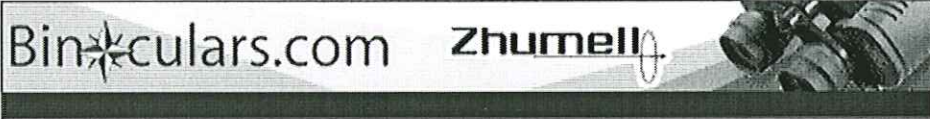


Change chart size (500 to 1600 pixels)

Click anywhere within the inner chart to zoom in on that region.
 Click in the border region to get a new chart at the same resolution, but with the centre point moved in that direction.
 The chart is oriented such that the local zenith is towards the top.
 Click here for more info and help on using the charts.

Developed and maintained by Chris Peat, Heavens-Above GmbH
Please read the updated FAQ before sending e-mail.





Ads by Google

Telescope
Tons telescopes at prices way below retail. Save big. www.telescope.com

Visible Pass Details

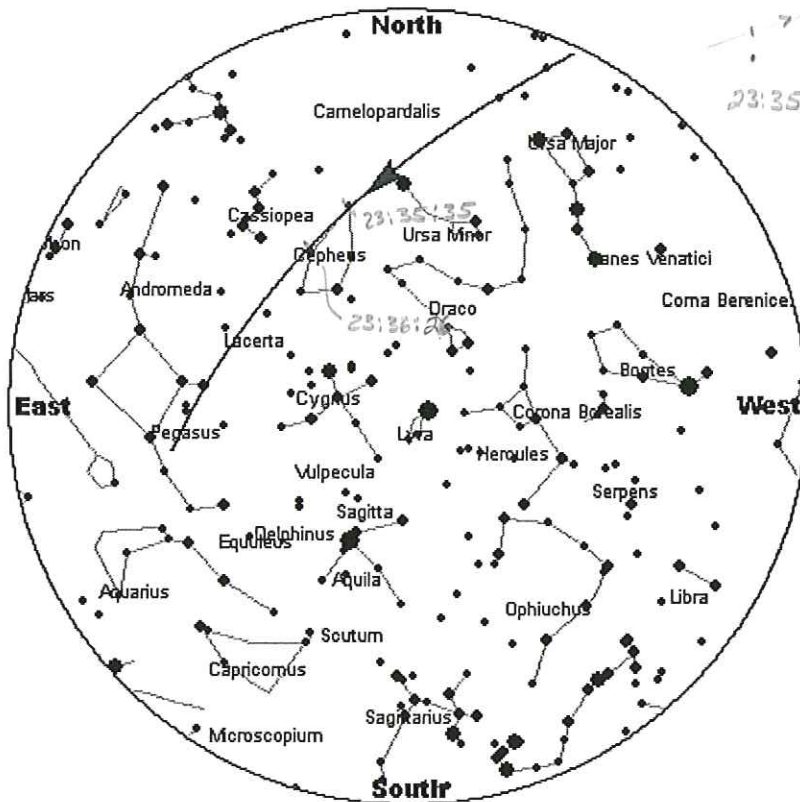
[| Home](#) | [Info](#) | [Orbit](#) | [Help](#) |

Ground Track

NEW! Click here for a view of the ground track during the pass, centred on your location.

Whole Sky Chart

This chart shows the path of the satellite across the sky. Please note that East and West are **NOT** the "wrong way round" if you hold the chart over your head to correspond to the view of the sky.



next star
23:36:26
← *point of Cepheus*
23:35:35
23:29:25 10°
23:37:23 50°
23:40:20 36°

Very faint from my backyard

Smartest V Earth

4 Time Zones
Sunrise/set
Moonrise/set
Cities Present
www.SkyTime.com

Astronomy God

Was the Universe Created?
A Different Perspective
www.Celestial.com

Hubble Pic

Over 450 Hubble telescope pictures on one CD.
physlink.com/

Telescope Savings

Low prices on top brands. Co
View rating
www.astronomer.com

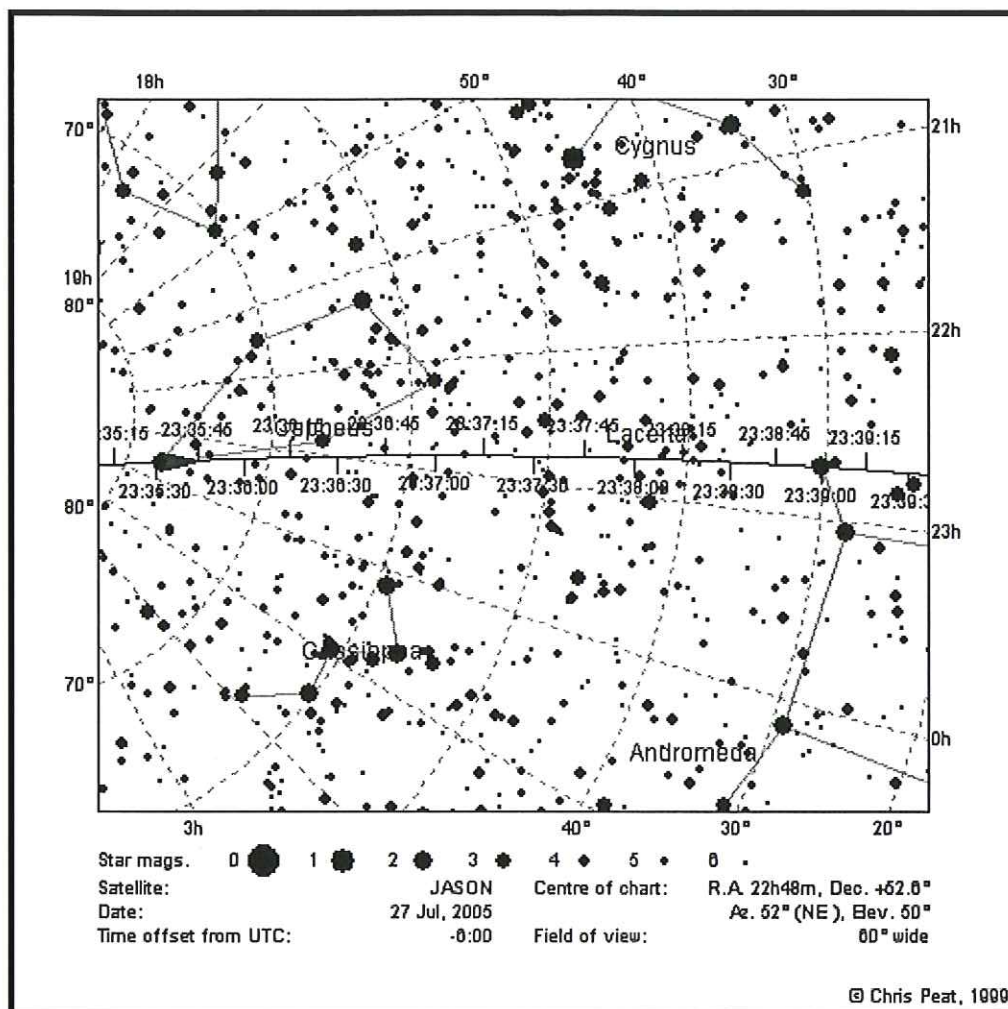
Pass Details

Date: Wednesday, 27 July, 2005
Satellite: JASON
Observer's Location: Broomfield (39.9210°N, 105.0860°W)
Local Time: Mountain Daylight Time (GMT - 6:00)
Orbit: 1,331 x 1,344 km, 66.0° (Epoch 25 Jul)
Sun altitude at time of maximum pass altitude: -27.5°

Event	Time	Altitude	Azimuth	Distance (km)
Rises above horizon	23:26:26	0°	332° (NNW)	4,369

Reaches 10° altitude	23:29:25	10°	338° (NNW)	3,398
Maximum altitude	23:37:23	50°	52° (NE)	1,666
Enters shadow	23:40:19	36°	101° (ESE)	1,994

Detailed Star Chart

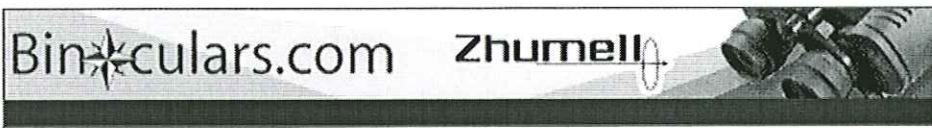


Change chart size (500 to 1600 pixels)

Click anywhere within the inner chart to zoom in on that region.
 Click in the border region to get a new chart at the same resolution, but with the centre point moved in that direction.
 The chart is oriented such that the local zenith is towards the top.
 Click here for more info and help on using the charts.

Developed and maintained by Chris Peat, Heavens-Above GmbH
Please read the updated FAQ before sending e-mail.

Hosted by  DLR/GSOC



Ads by Google

Live Space Nightly
Broadcast f
See 37 Milli
Away
www.slooh.com

JASON - Visible Passes

[| Home](#) | [| Info.](#) | [| Orbit](#) | [| Prev.](#) | [| Next](#) | [| Help](#) |

Search Period Start: 12:00 Monday, 25 July, 2005
 Search Period End: 12:00 Thursday, 04 August, 2005
 Observer's Location: Broomfield (39.9210°N, 105.0860°W)
 Local Time: Mountain Daylight Time (GMT - 6:00)
 Orbit: 1,331 x 1,344 km, 66.0° (Epoch 23 Jul)

The Hubble
Did the Uni
From - God
the Latest F
www.Celestialf

NEW! Click on the date to get a star chart and other pass details.

Date	Mag	Starts			Max. Altitude			Ends		
		Time	Alt.	Az.	Time	Alt.	Az.	Time	Alt.	Az.
25 Jul	?	22:44:43	10	NNW	22:51:05	24	NE	22:57:11	11	E
26 Jul	?	00:39:57	10	NNW	00:48:11	86	NE	00:49:37	66	SE
26 Jul	?	02:37:45	10	WNW	02:42:02	19	W	02:42:02	19	W
26 Jul	?	21:12:35	10	N	21:15:20	12	NNE	21:18:05	10	NE
26 Jul	?	23:07:02	10	NNW	23:14:22	34	NE	23:18:44	21	E
27 Jul	?	01:02:41	10	NW	01:10:45	63	WSW	01:11:10	62	SW
27 Jul	?	21:34:38	10	N	21:39:11	15	NNE	21:43:43	10	ENE
27 Jul	?	23:29:25	10	NNW	23:37:23	50	NE	23:40:20	36	ESE
28 Jul	?	01:25:41	10	NW	01:32:45	39	WSW	01:32:45	39	WSW
28 Jul	?	21:56:49	10	NNW	22:02:47	21	NE	22:08:43	10	E
29 Jul	?	23:51:56	10	NNW	00:00:10	75	ENE	00:01:58	58	ESE
29 Jul	?	01:49:13	10	NW	01:54:24	23	W	01:54:24	23	W
29 Jul	?	22:19:06	10	NNW	22:26:09	30	NE	22:31:13	17	E
30 Jul	?	00:14:35	10	NW	00:22:46	73	WSW	00:23:39	67	SSW
30 Jul	?	02:14:13	10	WNW	02:16:06	12	W	02:16:06	12	W
30 Jul	?	20:46:46	10	N	20:50:46	14	NNE	20:54:45	10	NE
30 Jul	?	22:41:28	10	NNW	22:49:15	44	NE	22:52:57	29	E
31 Jul	?	00:37:29	10	NW	00:45:11	46	WSW	00:45:23	46	WSW
31 Jul	?	21:08:56	10	N	21:14:28	19	NNE	21:19:58	10	ENE
31 Jul	?	23:03:55	10	NNW	23:12:07	66	NE	23:14:43	45	ESE

Space tele:
Explore the
travel to the
universe, fo
www.newscien

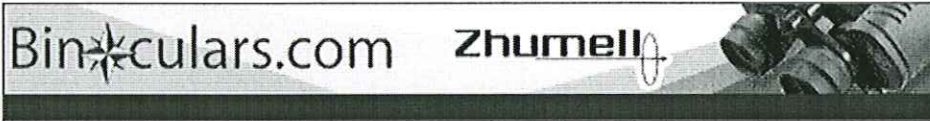
Smartest V Earth
4 Time Zon
Sunrise/set
Moonrise/pl
Cities Pres
www.SkyTimef

Hubble Pic
Over 450 hi
Hubble tele
on one CD.
physlink.com/e

01 Aug	?	01:00:48	10	NW	01:07:10	28	WSW	01:07:10	28	WSW
01 Aug	?	21:31:11	10	NNW	21:37:54	27	NE	21:44:05	12	E
01 Aug	?	23:26:32	10	NNW	23:34:46	83	WSW	23:36:32	60	SSE
02 Aug	?	01:25:03	10	WNW	01:28:59	16	W	01:28:59	16	W
02 Aug	?	21:53:31	10	NNW	22:01:05	38	NE	22:05:56	21	ESE
02 Aug	?	23:49:20	10	NW	23:57:15	54	WSW	23:58:23	50	SW
03 Aug	?	22:15:56	10	NNW	22:24:02	57	NE	22:27:49	33	ESE
04 Aug	?	00:12:29	10	NW	00:19:32	33	WSW	00:20:17	32	WSW

Developed and maintained by Chris Peat, Heavens-Above GmbH
Please read the updated FAQ before sending e-mail.





Ads by Google

Telescope
Tons telescopes at prices you can't believe. Save big. www.telescope.com

Visible Pass Details

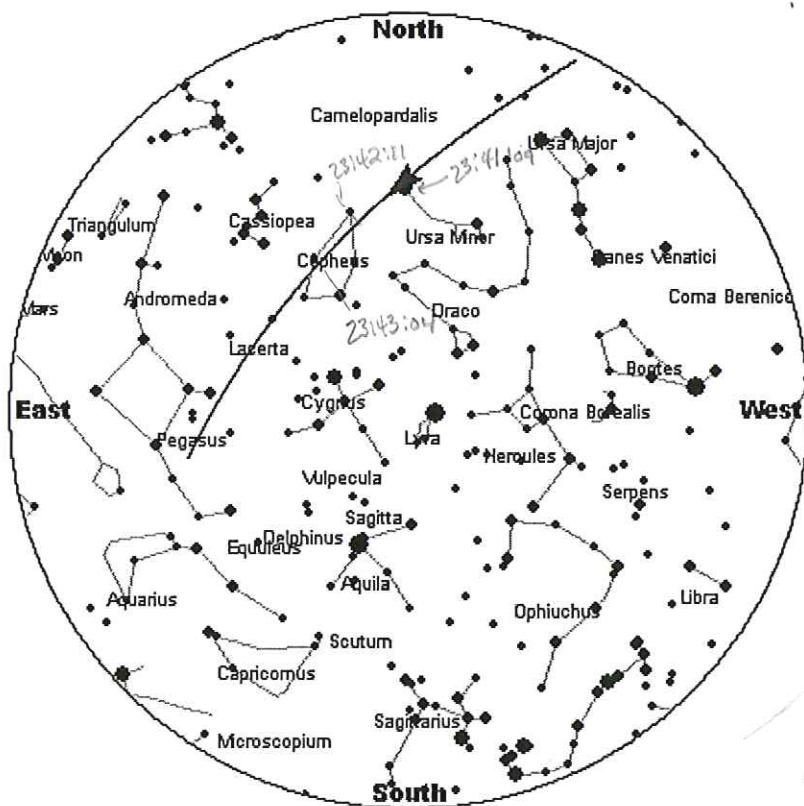
[| Home](#) | [Info](#) | [Orbit](#) | [Help](#) |

Ground Track

NEW! Click here for a view of the ground track during the pass, centred on your location.

Whole Sky Chart

This chart shows the path of the satellite across the sky. Please note that East and West are **NOT** the "wrong way round" if you hold the chart over your head to correspond to the view of the sky.



Handwritten notes:
Polaris
23:41:09
23:35:59 10°
23:44:02 53°
23:46:44 39°

Astronomy God
Was the Ur Created? C a Different www.Celestial.com

Hubble Pic
Over 450 Hubble telescope photos on one CD. physlink.com/

Telescope Savings
Low prices brands. Co View rating www.astronomer.com

Handwritten notes:
↑ next star
Point of Cepheus

Handwritten note: Much brighter than Jason but still faint

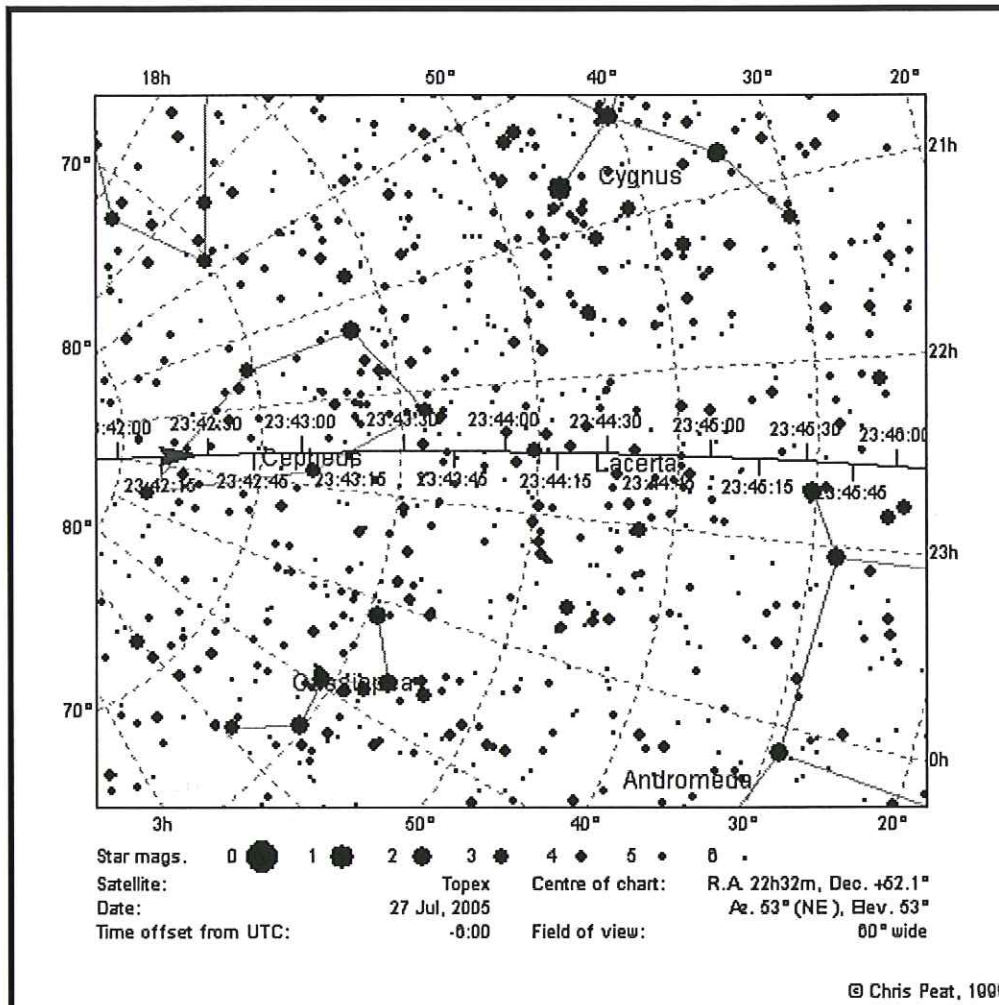
Pass Details

Date: Wednesday, 27 July, 2005
 Satellite: Topex
 Observer's Location: Broomfield (39.9210°N, 105.0860°W)
 Local Time: Mountain Daylight Time (GMT - 6:00)
 Orbit: 1,332 x 1,344 km, 66.0° (Epoch 24 Jul)
 Sun altitude at time of maximum pass altitude: -28.0°

Event	Time	Altitude	Azimuth	Distance (km)
Rises above horizon	23:33:02	0°	331° (NNW)	4,368

Reaches 10° altitude	23:35:59	10°	337° (NNW)	3,398
Maximum altitude	23:44:01	53°	53° (NE)	1,606
Enters shadow	23:46:44	39°	103° (ESE)	1,899

Detailed Star Chart



Change chart size (500 to 1600 pixels)

Click anywhere within the inner chart to zoom in on that region.
 Click in the border region to get a new chart at the same resolution, but with the centre point moved in that direction.
 The chart is oriented such that the local zenith is towards the top.
 Click here for more info and help on using the charts.

Developed and maintained by Chris Peat, Heavens-Above GmbH
Please read the updated FAQ before sending e-mail.





Ads by Google

Live Space Nightly
Broadcast f
See 37 Milli
Away
www.slooh.com

Topex - Visible Passes

| Home | Info. | Orbit | Prev. | Next | Help |

Search Period Start: 12:00 Monday, 25 July, 2005
 Search Period End: 12:00 Thursday, 04 August, 2005
 Observer's Location: Broomfield (39.9210°N, 105.0860°W)
 Local Time: Mountain Daylight Time (GMT - 6:00)
 Orbit: 1,331 x 1,344 km, 66.0° (Epoch 23 Jul)

The Hubble
Did the Uni
From - God
the Latest F
www.Celestialf

NEW! Click on the date to get a star chart and other pass details.

Date	Mag	Starts			Max. Altitude			Ends		
		Time	Alt.	Az.	Time	Alt.	Az.	Time	Alt.	Az.
25 Jul	8.0	22:51:16	10	NNW	22:57:48	25	NE	23:03:36	12	E
26 Jul	6.3	00:46:33	10	NNW	00:54:45	88	WNW	00:56:02	69	SSE
26 Jul	8.0	02:44:40	10	WNW	02:48:27	17	W	02:48:27	17	W
26 Jul	8.7	21:19:04	10	N	21:22:09	12	NNE	21:25:13	10	NE
26 Jul	7.5	23:13:35	10	NNW	23:21:02	36	NE	23:25:09	23	E
27 Jul	6.5	01:09:18	10	NW	01:17:19	58	WSW	01:17:34	58	WSW
27 Jul	8.4	21:41:08	10	N	21:45:57	16	NNE	21:50:44	10	ENE
27 Jul	6.9	23:35:59	10	NNW	23:44:02	53	NE	23:46:44	39	ESE
28 Jul	7.2	01:32:23	10	NW	01:39:10	35	W	01:39:10	35	W
28 Jul	8.1	22:03:21	10	NNW	22:09:31	22	NE	22:15:39	10	E
29 Jul	6.4	23:58:30	10	NNW	00:06:45	80	NE	00:08:22	62	SE
29 Jul	7.8	01:56:02	10	WNW	02:00:48	21	W	02:00:48	21	W
29 Jul	7.6	22:25:38	10	NNW	22:32:50	32	NE	22:37:37	19	E
30 Jul	6.4	00:21:12	10	NW	00:29:20	68	WSW	00:30:03	65	SW
30 Jul	8.4	02:21:48	10	W	02:22:30	11	W	02:22:30	11	W
30 Jul	8.5	20:53:16	10	N	20:57:33	15	NNE	21:01:48	10	ENE
30 Jul	7.0	22:48:01	10	NNW	22:55:54	47	NE	22:59:20	31	ESE
31 Jul	7.0	00:44:09	10	NW	00:51:43	42	WSW	00:51:47	42	WSW
31 Jul	8.1	21:15:26	10	N	21:21:11	20	NE	21:26:55	10	ENE
31 Jul	6.5	23:10:29	10	NNW	23:18:43	70	ENE	23:21:06	49	ESE

Space tele:
Explore the
travel to the
universe, fo
www.newscien

Smartest V Earth
4 Time Zon
Sunrise/set
Moonrise/pl
Cities Pres
www.SkyTime

Hubble Pic
Over 450 hi
Hubble tele
on one CD.
physlink.com/e

01 Aug	7.7	01:07:33	10	NW	01:13:33	25	W	01:13:33	25	W
01 Aug	7.7	21:37:42	10	NNW	21:44:35	28	NE	21:50:28	13	E
01 Aug	6.4	23:33:07	10	NNW	23:41:20	78	WSW	23:42:55	61	S
02 Aug	8.2	01:32:07	10	WNW	01:35:22	14	W	01:35:22	14	W
02 Aug	7.2	22:00:03	10	NNW	22:07:44	41	NE	22:12:19	23	ESE
03 Aug	6.8	23:55:58	10	NW	00:03:47	49	WSW	00:04:46	47	SW
03 Aug	6.6	22:22:29	10	NNW	22:30:38	61	NE	22:34:12	36	ESE
04 Aug	7.5	00:19:11	10	NW	00:26:02	30	WSW	00:26:39	30	WSW

Developed and maintained by Chris Peat, Heavens-Above GmbH
Please read the updated FAQ before sending e-mail.

Hosted
by  DLR/GSOC