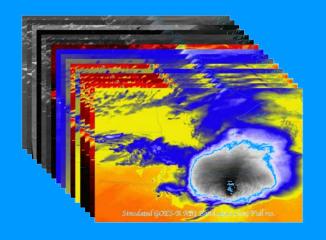
Government employment opportunities (GEO)

Timothy J. Schmit (tim.j.schmit@noaa.gov)

DoC/NOAA/NESDIS/Satellite Applications and Research (STAR)

Advanced Satellite Products Branch (ASPB)

Madison, WI



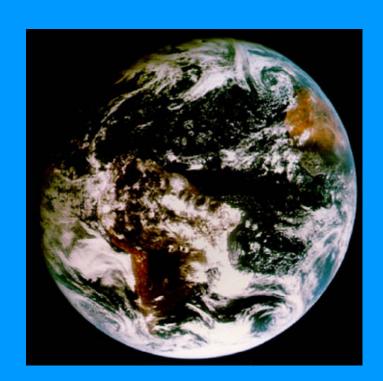
CORP Symposium

July 23, 2013

Madison, WI
"The birthplace of Satellite Meteorology"

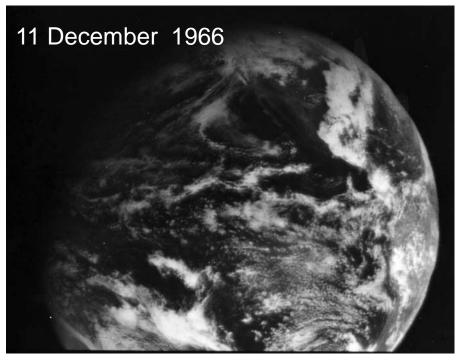


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1966: ATS-1 launched

 Applications Technology Satellite (ATS)-1 was the first geostationary imager, launched 6 December 1966.
 Imaging instrument designer and SSEC (Madison, WI) co-founder, Verner E. Suomi, proclaimed, "the clouds move, not the earth".





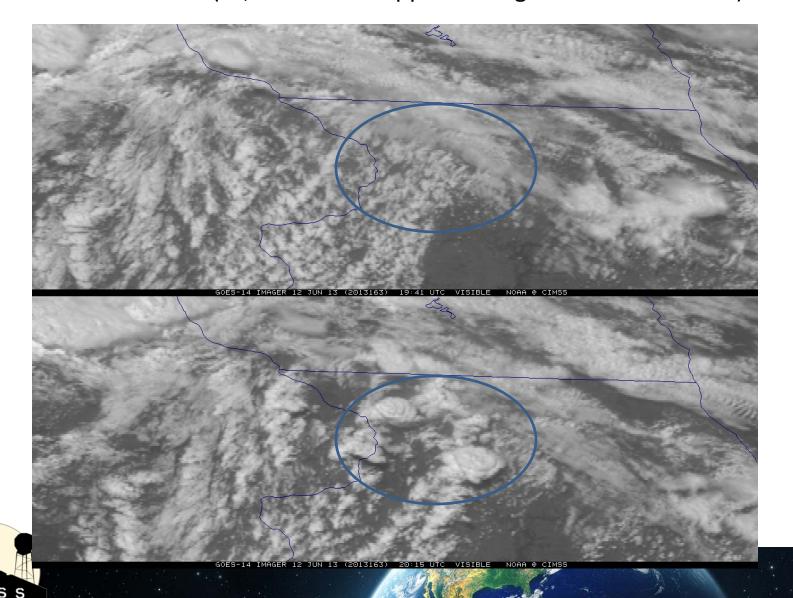


GOES-14 Imager SRSOR special imagery





showing rapid development during a data gap associated with a Full Disk scan on 12 June 2013. (Or, 'what can happen during one Full Disk scan?)

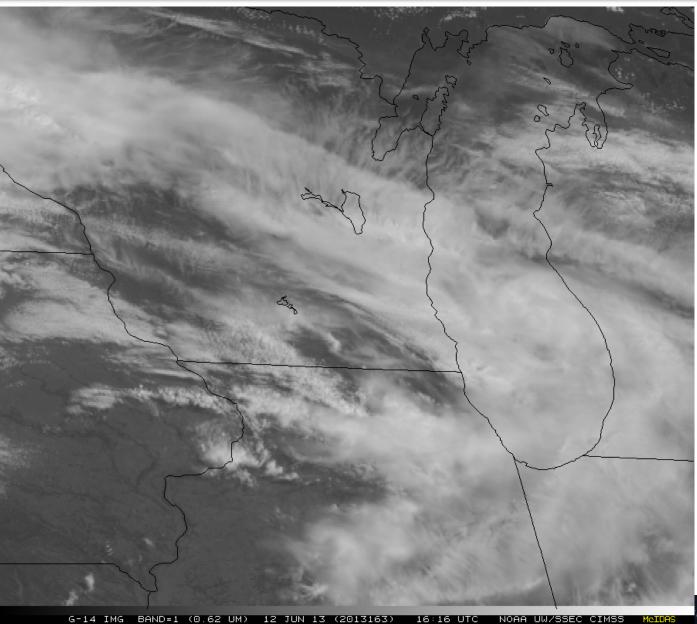




GOES-14 SRSOR







CIMSS



SRSOR from GOES-14





 More days of SRSOR expected in mid-August.





GOES-14 Imager 2013 1-min imagery (SRSOR)

(Super Rapid Scan Operations for GOES-R)

GOES-14 Imager provided special 1-min data June 12th to the 14th, 2013. Also, GOES-14 will supply 1-min imagery during parts of mid-August, 2013. These test dates are slated to start on 20 August 2013, and end on August 28, 2013. These would be to support Global Hawk flights (or other targets of opportunity, similar to the SRSOR experiment in 2012). Dry run days are expected to be August 13-16. GOES-14 will be located near 105 degrees West. GOES-14 will return to storage mode on August 29, 2013.

SRSO for GOES-R Experiment Plan.

GOES-14-relevant SRSOR links:

SSEC: All bands at full coverage/resolutions [With roam and zoom. Allows access to past days.]

SSEC Data Center kml files of Imager: bands 1 and 4

CIMSS Satellite Blog

CIRA loop of the visible and infrared window and water vapor [Note that the number at the end of the URL can be changed to show a different number of images.]

NSSL loop of the visible and infrared window

GOES-14 SRSOR

SRSOR information from 2012

The SRSOR schedule allows for 26 1-min images most 30 minute periods. Other GOES schedules .

Daily Implementation of GOES-14 SRSOR Schedules

Starting Date [Julian Day] (Day of Week)	Test Schedule Name	Duration	Center Point (coverage)	Comments	Links (large files)
June 12 [163] (Wednesday)	SRSOR	163/ 16:14:30 UTC - 164/ 11:44:30 UTC	37N 85W	Moderate Risk over IL, IN, OH	IL IL (HD) MidWest (YouTube) GA GA (HD) Blog: IL
June 13 [164] (Thursday)	SRSOR	164/ 11:44:30 UTC - 165/ 12:14:30 UTC	36N 84W	Moderate Risk over MD, DE, etc.	KY VA MidAtlantic (YouTube) Blog: Eastern US
August 13 [225] (Tuesday)	Dry run	225/ ??:14:30 UTC - 226/ ??:44:30 UTC	2?N ??W		
August 14 [226] (Wednesday)	Dry run	226/ ??:14:30 UTC - 227/ ??:44:30 UTC	27N 27W		_
August 15 [227] (Thursday)	Dry run	227/ ??:14:30 UTC - 228/ ??:44:30 UTC	2?N ??W		
August 16 [228] (Friday)	Dry run	228/ ??:14:30 UTC - 229/ ??:44:30 UTC	27N 27W		_
August 20 [232] (Tuesday)	SRSOR?	232/ ??:14:30 UTC - 233/ ??:44:30 UTC	2?N 2?W		
August 21 [233] (Wednesday)	SRSOR?	233/ ??:14:30 UTC - 234/ ??:44:30 UTC	??N ??W		_
August 22 [234] (Thursday)	SRSOR?	234/ ??:14:30 UTC - 235/ ??:44:30 UTC	??N ??W		_
August 23 [235] (Friday)	SRSOR?	235/ ??:14:30 UTC - 236/ ??:44:30 UTC	2?N ??W		_



ABI Spectral Bands

Future GOES imager (ABI) band	Wavelength range (µm)	Central wavelength (µm)	Nominal subsatellite IGFOV (km)
I	0.45-0.49	0.47	1
2	0.59-0.69	0.64	0.5
3	0.846-0.885	0.865	I
4	1.371-1.386	1.378	2
5	1.58-1.64	1.61	1
6	2.225–2.275	2.25	2
7	3.80-4.00	3.90	2
8	5.77–6.6	6.19	2
9	6.75–7.15	6.95	2
10	7.24–7.44	7.34	2
П	8.3–8.7	8.5	2
12	9.42–9.8	9.61	2
13	10.1-10.6	10.35	2
14	10.8–11.6	11.2	2
15	11.8-12.8	12.3	2
16	13.0-13.6	13.3	2

ABI Scans (in 30 min)

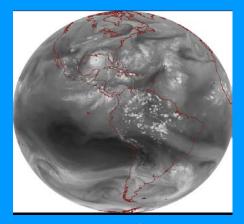


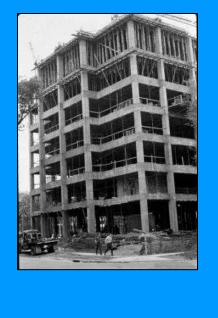


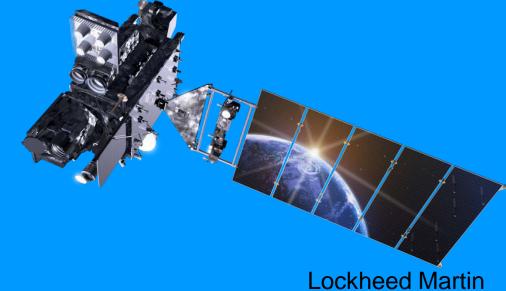


The next generation geostationary imager offers more bands, more often

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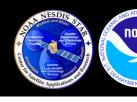


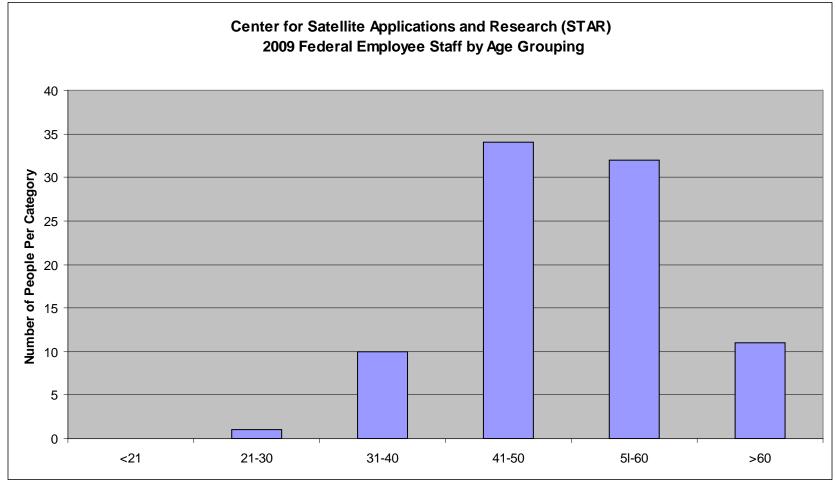






STAR WORKFORCE Age Distribution





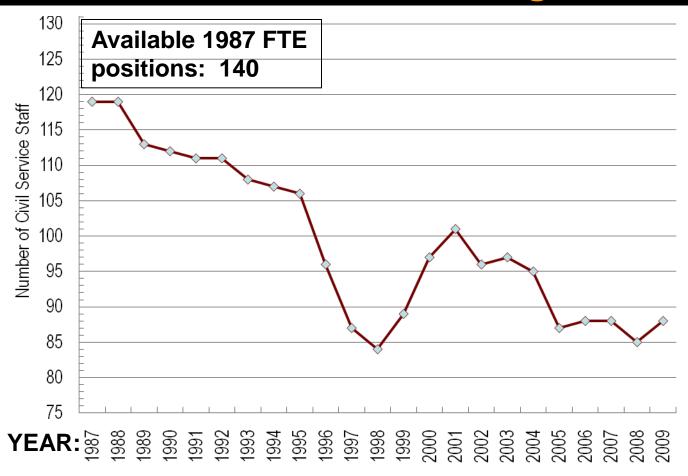
Approximately 40% of STAR's workforce retired in the last 5 years 40% of STAR's workforce MAY RETIRE in the next 5 years



STAR FACTS Civil Servant Staffing







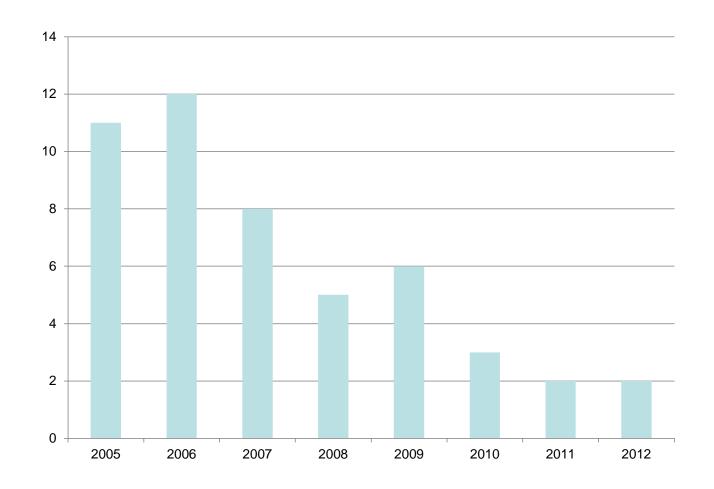
STAR workforce planning is essential to maintain a viable science office



STAR WORKFORCE NUMBER OF RECENT HIRES

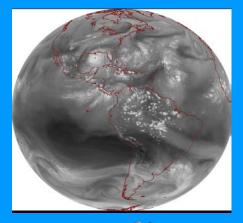




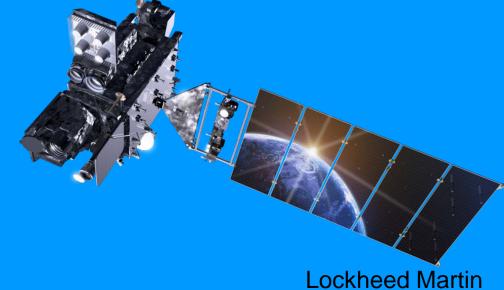


Turnover of STAR workforce may impact future readiness

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Four Pillars of NOAA



Observations

Critical Environmental Intelligence



People



Research



Computation & Modeling

People are key for each pillar!

Options

NOAA/NWS or NOAA/NESDIS

DOE or DOI or EPA or FAA or NASA

DoD (Airforce, Navy, etc.)

- "Government-support"
 - NOAA Cooperative Institutes, etc.
 - Contractors

Details

 NOAA/NWS: operational forecasters, modelers (NCEP), hydrologist, NHC, HPC, OPC, AWC, SPC, etc.

 NOAA/NESDIS: Satellite algorithm/product development and research; satellite operator, volcanic ash advisory, synoptic analysis, etc.

 NOAA/NESDIS/OAR: research, surface observing, etc.

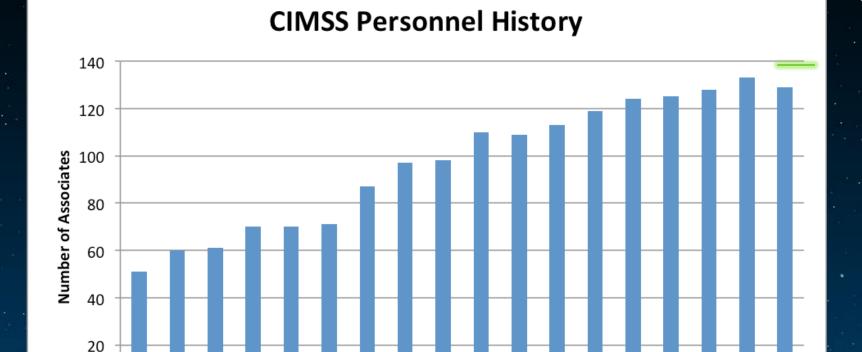
Details

- NASA: satellite products, research, etc.
- DOE (Energy): solar, etc.
- DOI (Interior): wildfires, etc.
- EPA: air quality, etc.
- DOA (Agriculture): researcher, etc.
- FAA: 4-d data cube, hazards to aviation
- DoD (Airforce, Navy, etc.)
 - Operational forecasts
 - Modelers
 - Etc.

Details

- "Government-support"
 - NOAA Cooperative Institutes, UCAR, etc.
 - http://www.nrc.noaa.gov/ci/locations/index.html
 - Research on many topics
 - Contractors
 - http://www.corpblogspot.org/
 - Full range of support from operations to IT to research
 - http://www2.ucar.edu/opportunities

CIMSS Personnel (now 136)

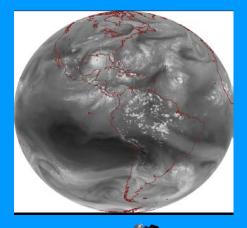


1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011

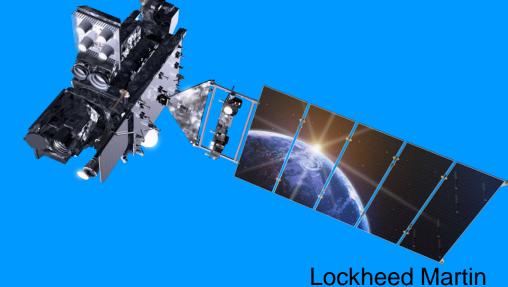
Year

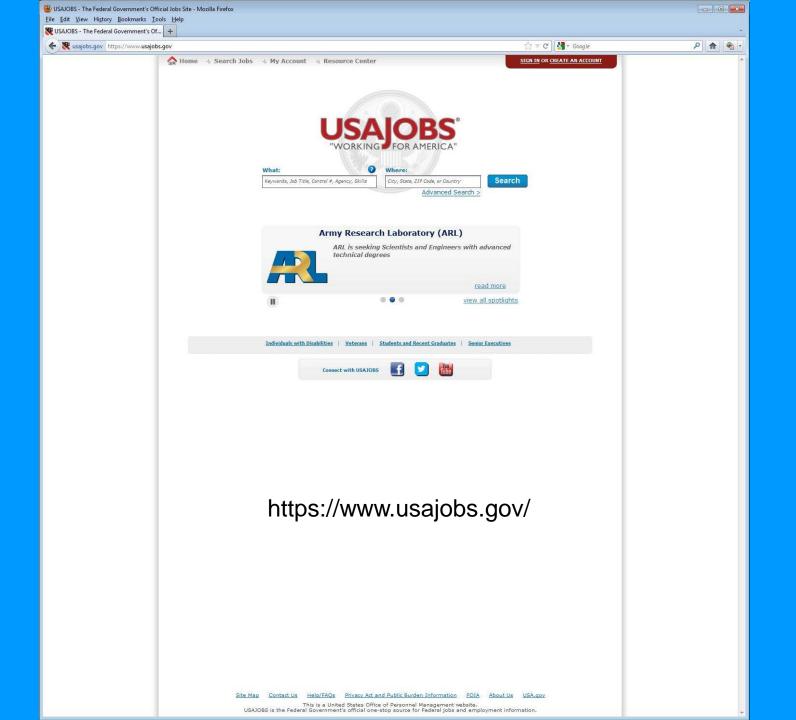


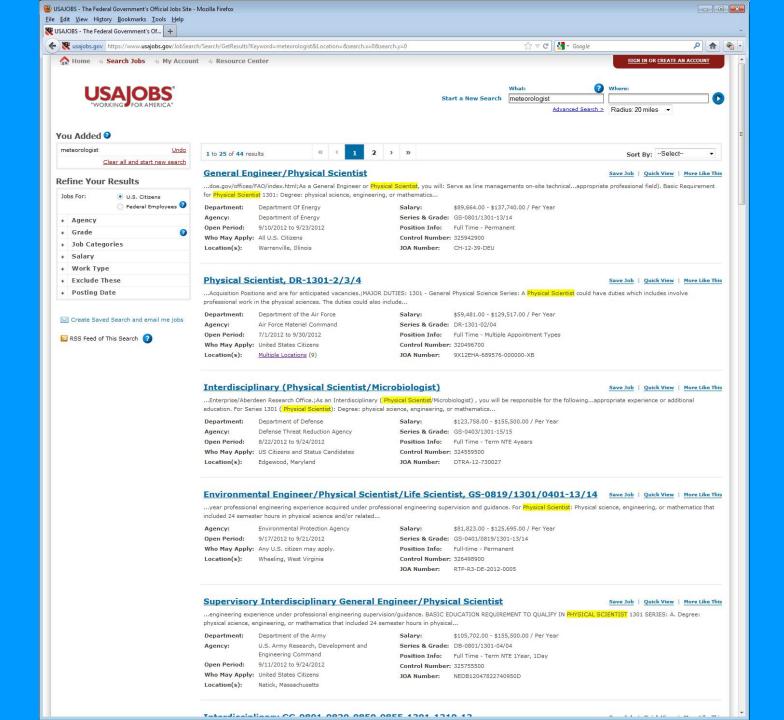
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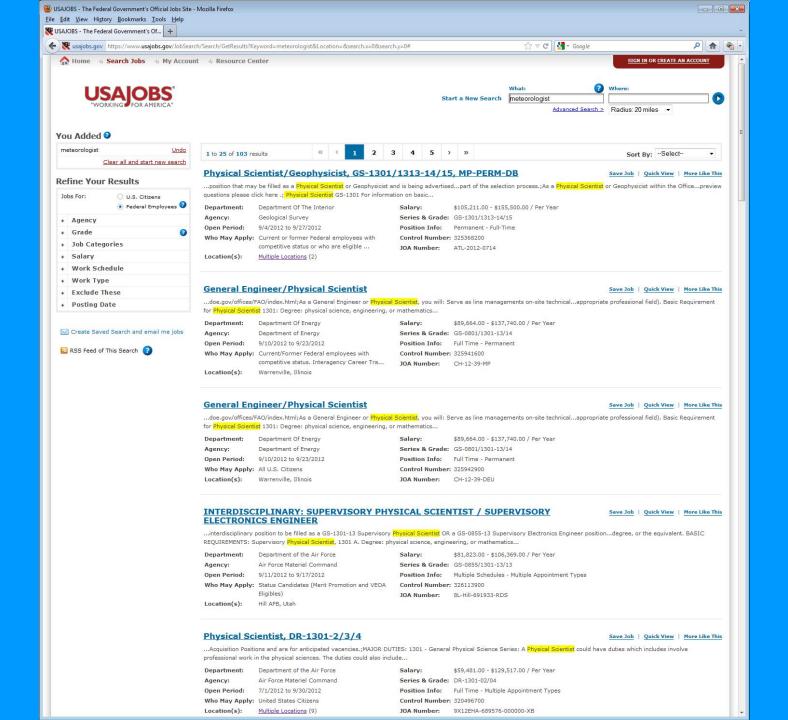


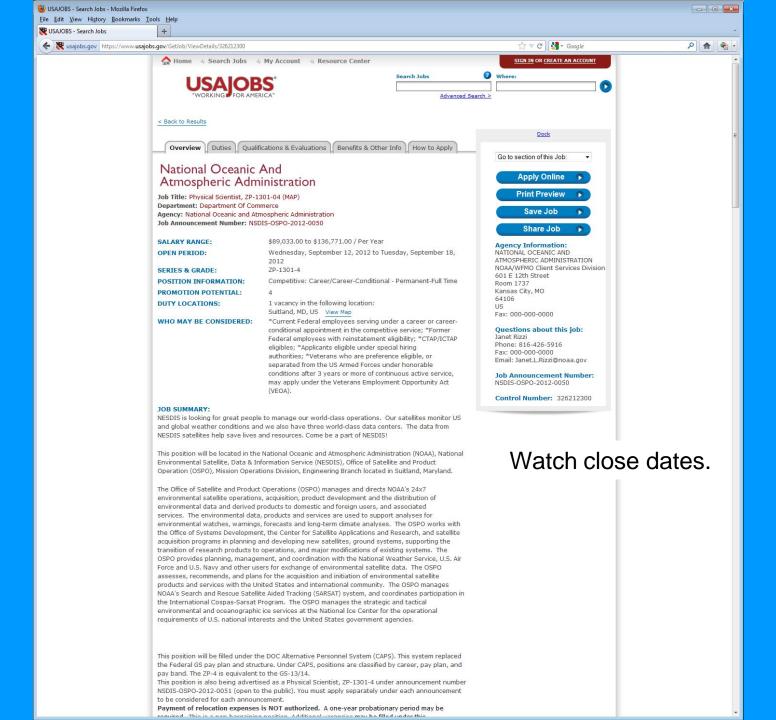


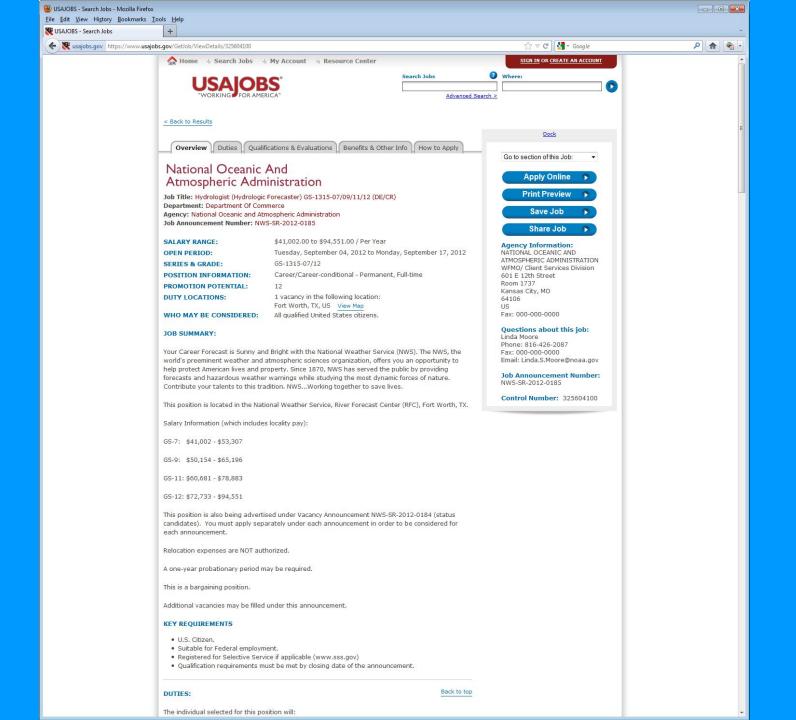


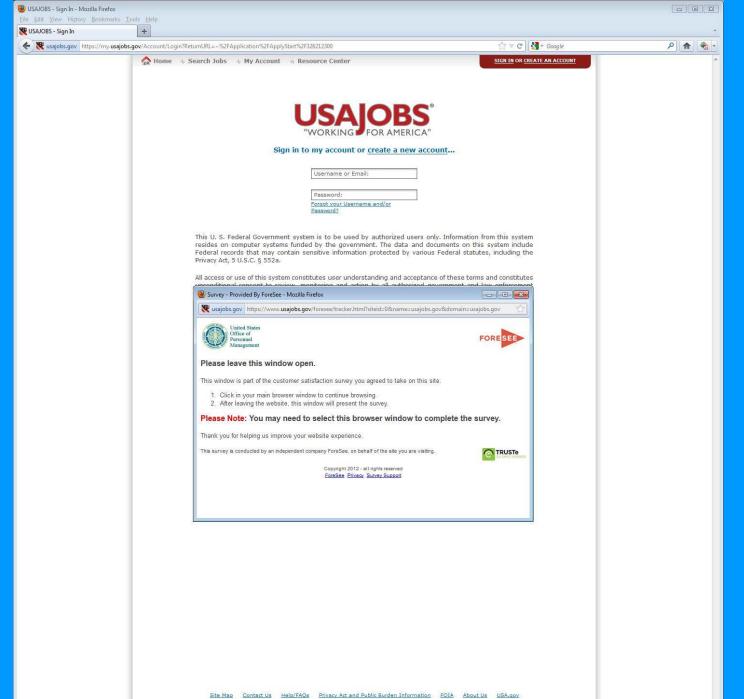


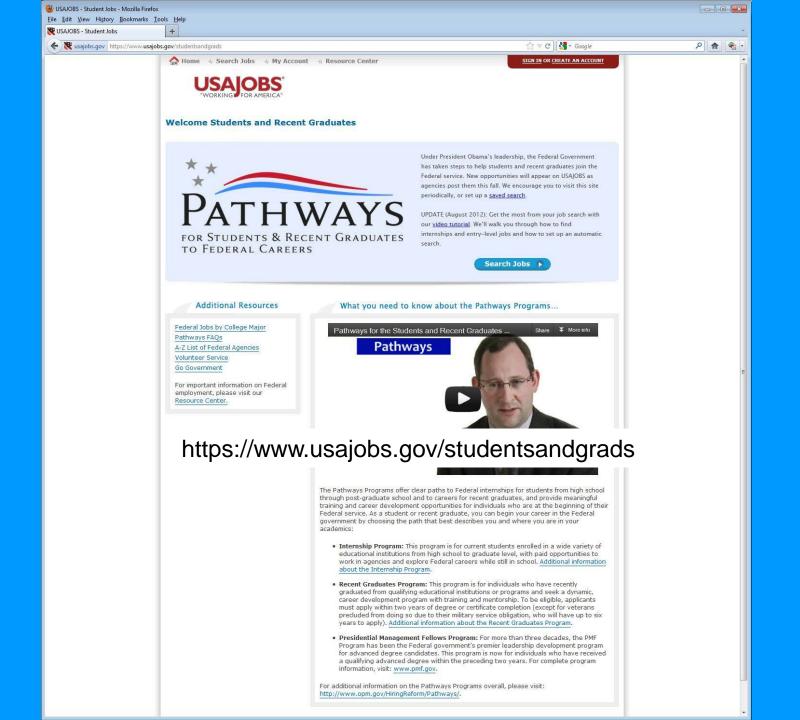




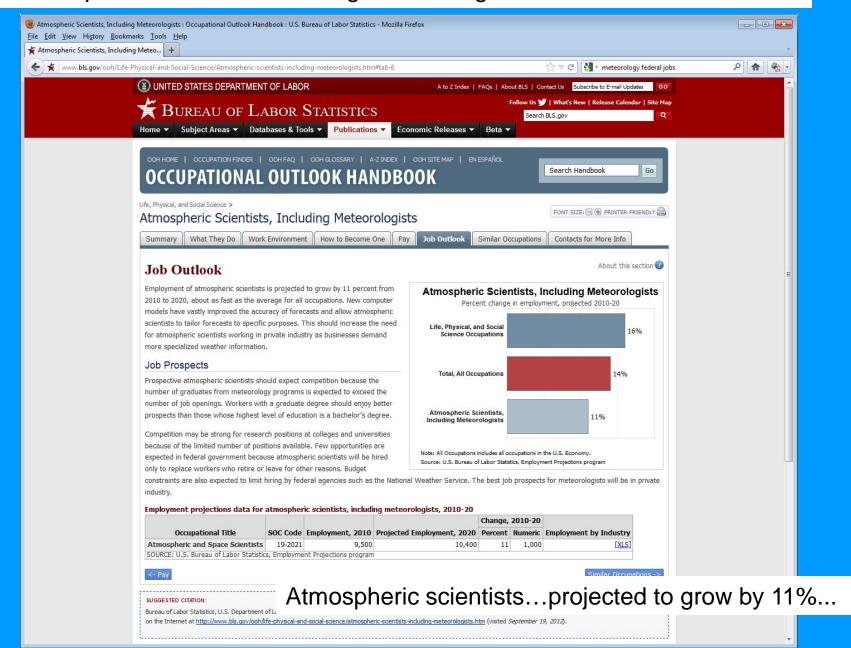








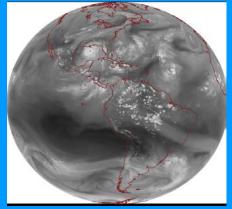
US Bureau of Labor Statistics: http://www.bls.gov/ooh/Life-Physical-and-Social-Science/Atmospheric-scientists-including-meteorologists.htm#tab-6

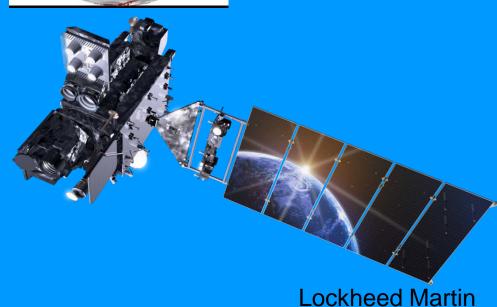


US Bureau of Labor Statistics:

- Prospective atmospheric scientists should expect competition because the number of graduates from meteorology programs is expected to exceed the number of job openings.
- Workers with a graduate degree should enjoy better prospects than those whose highest level of education is a bachelor's degree.
- Competition may be strong for research positions at colleges and universities because of the limited number of positions available.
- Few opportunities are expected in federal government because atmospheric scientists will be hired only to replace workers who retire or leave for other reasons.
- The best job prospects for meteorologists will be in private industry.

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"Tips"

- Gain experience to stand apart
 - Take more courses than required
 - Consider getting a minor
 - Get a masters degree
 - Computer skills (programming, web, etc.)
 - Consider for internships, coops, Student Career
 Experience Program (SCEP), etc.
 - Business / management courses

"Tips"

- "You can't teach enthusiasm!"
- Do your homework about the agency/group
- Be flexible wrt location, other options await
- Join profession groups (NWA, AMS, etc.)
- "You only need one job"
- Don't be shy advertise yourself
- Get involved, network (+ social media)
- Investigate 'government-support' positions, such as at NOAA Cooperative Institutes or contractors

Select Links

- https://www.usajobs.gov/
- http://www.careers.noaa.gov/special_programs.html
- http://www.theweatherprediction.com/jobs/
- http://www.navy.com/careers.html
- http://www.airforce.com/careers/
- http://jobs.faa.gov/
- http://www.bls.gov/ooh/Life-Physical-and-Social-Science/Atmospheric-scientists-includingmeteorologists.htm
- http://www.nwas.org/jobs.php (member portal)

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Questions?

