



NOAA's Commercial Remote Sensing Regulatory Affairs

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Current Trends

- Explosion of new licensees & licenses
 - 26 issued FY 96 to FY10
 - 46 issued FY10 to present
 - 11 applications in process
 - 22 other entities told they must apply
- Explosion of foreign and domestic Ground Station inspection sites
 - 26 sites at end of FY10
 - 93 current sites--71 locations
 - 10 sites pending approval
 - 100+ sites anticipated by FY16
- 52 on-orbit satellites...6 on Oct 1, 2010...maybe 100+ on 1/1/2016
- Increase in Quarterly and Annual Audits
- Expect a corresponding increase in foreign agreements



Current Trends

- Small Sats will dominate market and workload
 - Lower cost for build (COTS) & launch (secondary payload)
 - Rapid refresh
 - Significant increase in foreign Small Sats
- Larger Cubesats...6U becoming common
 - Future missions: limited propulsion, telescoping optics
- Constellation licenses
 - Foreign constellations...Satellogic “300”
- Licenses for ISS platform operations and Cubesats deployment
- Different sensors: Hyper, SWIR, LWIR, Radiometric, Video
- Operations requiring Non-Earth Imaging (NEI) to support primary mission--proximity operations to natural and man-made objects
- Satellite refueling, asteroid mining



Issues

- Licensing position de-funded...currently 1 deep since Feb 2014
- Inspection budget falls farther behind with each new location added
- Expanding Shutter Control requirements
 - TBD manpower, training, software and hardware requirements
- Special Collects
- Non-Earth Imaging (NEI)



Issues

- Need to streamline Cubesat reviews/license processing
- CubeSat imagery review
- Increased inspection requirements
- New technologies
- Increased foreign capability
- Part domestic – Part foreign owner/operators



ACCRES Letter

- Combination of factors puts U.S. leadership in CRS at risk
 - Internal NOAA issues
 - National security imbalanced undermines U.S. policy goals
- Fundamental rethinking is necessary as the driver of the U.S. government's approach to policy and regulation.



ACCRES Letter

Effective regulation slowed by outdated law, policy, regulatory requirements or practice...hindering application of limited resources

- Internal NOAA issues
 - Inadequate resources for increasing tasks
 - Needs a new approach to receive, process, and respond quickly to its constituents
 - Create relief from impractical regulatory enforcement actions, such as the need to visit ground stations



ACCRES Letter

Security perspectives locked in an anachronistic & outdated mindset

- National security imbalanced undermines U.S. policy goals
 - Concerns over how information is used by others
 - Amplify potential threats...downplaying the benefits
 - Frequently neglect to mention many other ways an adversary can gain information even if U.S. systems are restricted
 - Fail to recognize decades of trust between industry & USG
 - Value short-term, parochial considerations over longer-term, strategic
- Talks with USG about “modified operations” improved understanding of impacts & need to limit the area/time
 - But other ideas...creation of “blackout” lists & imagery downgrading fail to recognize economic/non-economic costs



ACCRES Letter

Moving Ahead...follow-on papers for your consideration:

- **Why and How to Regulate?**
 - How can we reevaluate regulation?
- **NOAA internal review**
 - Streamline their own internal activities
 - “Safe harbor” provisions to protect past decisions
- **Review of other USG activities, including NSPD-27**



Congressional Activities

H.R. 2262 Spurring Private Aerospace Competitiveness and Entrepreneurship (SPACE) Act of 2015

- Annual Reporting on application processing
- Report on updates necessary to protect national security, privacy, industrial base, and current state of RS technologies \

House Science, Space and Technology Committee review to ensure that the statutory and regulatory structure have kept up with the current state of technology and activities of the U.S. private sector

- Requested information on previous licenses processed



Questions?