ACCRES Regulatory Reform Task Group

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Task Group Members

- Michelle Kley – Chair of Task Group
- David Langan – Umbra Labs
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- Brian Weeden – Secure World Foundation
- Henry Hertzfeld – George Washington University
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- Bhavya Lal – STPI
- Gil Klinger – ACCRES Chair
- Tahara Dawkins – Director, CRSRA
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Background on Task Group

- In April 2018, ACCRES formed Task Group to comment on existing regulations
- Task Group started with input that had been previously provided in 2015
- Shortly before the October 2018 ACCRES meeting, NOAA provided confidential copy of draft regulations to the Task Group
- Task Group provided preliminary feedback at the October 2018 ACCRES meeting, with the direction to provide full feedback at the next ACCRES meeting

Background cont.

- May 14, 2019 – NPRM published
- July 15, 2019 - Deadline to provide comments
- Task Group provided comments on the released regulations over the past 2 weeks, which are discussed today.
- Some Task Group members will provide comments separately as part of formal NPRM process.

High Level Impressions

- As reported at the October 2018 ACCRES meeting, the draft confidential regulations made significant progress in providing more transparency and certainty, while streamlining the licensing process.
- Released draft regulations seem to have backtracked on some of the progress.
- Following slides provide high level feedback; not meant to be comprehensive.

Jurisdiction

- Several changes viewed as positive.
- Removal of substantial connection standard
- Foreign involvement with the operation of a system now a factor considered in categorizing as low or high risk licensee
- Limited to remote sensing portion of system if dual use; no jurisdiction over satellite servicing portion of a system that also has remote sensing capability

Low vs. High Risk Assessment

- New categorization as low or high risk intended to streamline the licensing process and provide certainty and transparency.
- However, qualifications for low-risk are stringent and will likely result in a discretionary low/high-risk assessment for all commercial operators.
- By default, all commercial systems would be preliminarily classified as high risk, unless the Secretary determines otherwise.
  - Few, if any, commercial systems are likely to have less than three operational spacecraft.
  - Any satellite in a sunsynchronous orbit would readily exceed daily revisit limitations. No moderate resolution imaging system could commercially operate a system with less than daily revisits.
  - Many commercial licensees are likely to have non-zero foreign investment or management.
- Presumption should be weighted toward the low-risk classification to support the objectives of SPD-2.

Application Process

- No timeline for Secretary to notify Secretaries of Defense and State upon making the risk category determination.
- Proposed rules do not provide a timeframe for response to licensee's request for update on the status of application review.

License Conditions

- Standard license conditions applicable to both low and high risk, some of which may be waived, and additional customized conditions applicable to high risk.
- The requirement that certain conditions not be waivable seems unnecessary and rigid. There is no obvious harm to allow licensees to request a waiver.
- Notifications periods brief or shortened. Unless expressly justified, no proposed notification periods should be shorter than notification periods under the current rules.
- See Appendix for other specific concerns.

Replacement Licenses

- Licensees may request a replacement license to implement the new standard conditions.
- Replacement at the discretion of Secretary of Commerce.
- Licensees would be forced to rely on appeal procedure to have existing license replaced to align with new rules if Secretary determines not to replace the license.
- Replacement licenses should include all previously approved waiver requests, and licensees should not be required to rejustify the need for waivers previously approved.

Retroactive License Conditions

- Concern that existing and proposed rules allow retroactive application of conditions.
- Recommend explicitly stating that the rules are not applicable retroactively unless licensee requests replacement of the license or where the USG imposes technical modifications on a high risk license.

USG Required Modifications

- After high risk license is granted, USG may require technical modification to a licensed system to meet a national security concern.
- Secretary to consult with licensee and USG agencies to determine whether technical modifications will cause licensee to incur additional costs or be unable to recover past development costs (including cost of capital).
- Secretary ***may*** require USG agency(ies) who determined national security concerns to reimburse the licensee.
- Could be burdensome for existing licensees who have significant capital investment in infrastructure.

Foreign Ownership

- Problematic changes to foreign ownership restrictions.
- Approval and reporting for **any** level of foreign ownership (960.6(h)).
- Information is a “material fact” and any changes to foreign ownership, no matter how small, would also be required to be reported and approved.
- This is in contrast to the current 5% foreign ownership (25% foreign debt) reporting threshold.
- Low-risk presumption should apply to licensees with 5 percent or less foreign ownership, consistent with current regulations.
- Similarly, foreign ownership disclosure requirements should continue to be at the 5% or greater level. The NPRM does not justify more stringent foreign ownership approval or disclosure requirements.

Foreign Agreements

- All significant or substantial foreign agreements require license modification.
- New definition broadens the definition to capture all agreements with foreigners.
- The proposed text does not provide a clear definition and creates burdensome ambiguity.
- Recommend narrowly and clearly defining what is a Significant or substantial foreign agreement.

Compliance and Monitoring

- Concerned that on-site inspections are outdated and not cost effective compliance mechanisms.
- Standard license condition: must cooperate with compliance, monitoring, and enforcement authorities, and permit the Secretary to access, *at all reasonable times*, any component of the system for the purpose of ensuring compliance.
- Access at all reasonable times is vague
- Ability to inspect any components owned or managed by person other than licensee may be problematic
- On-site inspections should only be imposed if there is an identified compliance concern related to a national security risk, and inspections should have clear and stated objectives.

Enforcement and Penalties

- Enforcement clauses are vague and non-specific.
- Daily specific penalties eliminated ($10K, which is also the amount for violations of FAA licenses) and only implied that penalties may be imposed and/or a license can be denied. This is quite watered down from current law.
- Note that other nations have specific penalties and those in violation may face criminal as well as civil penalties.

Appeals

- Applicants and licensees now have only 14 days to seek an appeal vs. 21 days under the current rules. The appeal period should not be shortened from 21 days to 14 days unless justified.
- The Secretary's determination regarding a request for appeal should be treated as a final agency action, subject to judicial review.
- "Legal error" should be an acceptable basis for appeal under 960.27(b)(2), consistent with the language in 960.28(b).

Appendix – Additional Comments and Concerns

NEI Input Previously Provided to NOAA

- ACCRES Task Group provided recommendations several years ago which are not reflected in proposed rules, including:
  - The US government should specify the process and timeline for responding to NEI emergency waivers and getting approval to disseminate uncorrelated tracking data.
  - The US government should demonstrate the need for wavelength restrictions on NEI, and weigh the impact of such restrictions on rendezvous and characterization CONOPS.
  - Sensitive NEI data should be require encryption only during transmission and storage, and any filtering should only be required when data is accessed for distribution/dissemination.
  - The requirement to obtain prior owner/operator or government consent before conducting resolved NEI should be waived for space objects identified in the public catalog as space debris or spent rocket stages.

NEI/NTI Conditions

- Night-time capability should be permitted so long as licensees agree to abide by the exclusion zones.
- Recommend rewording (10) so that it explicitly defines NTI as an imaging remote sensing process and does not, for example, capture collection of AIS radio messages or other non-imaging remote sensing data at night. "…using any ***imaging*** remote sensing technique other than…"
- Reduce GSD limitations for NTI dissemination in (10).
- Change (10) to read: "…using any ***imaging*** remote sensing technique other than…"
- Change (10) to read: "If the licensee collects night-time imaging data ("NTI data"), meaning ***imaging*** data of an area of the Earth's surface…"
- Change (12)(iii) to read: "Transmit ***unencrypted SAR data to or decrypt*** SAR data at any ground station located outside the United States";
- Change (12)(v) to read: ***Intentionally*** receive SAR radar pulses from remote sensing instruments not listed in this license.
- Strongly support (12)(i) change to 0.25-m IPR limit, but recommend changing to 0.24-m to achieve US parity with existing German COMSAR products.
- Make accommodation for Encrypted Authentication using identical key strength with respect to Low Risk Category systems, so that amateur satellites may use FCC spectrum that prohibits transmission of encrypted data.

NEI/NTI Conditions Continued

- (10) Could be erroneously interpreted to capture non-imaging phenomenology and should be reworded to remove this ambiguity. Example correction: "…using any imaging remote sensing technique other than…"

- (10)(i) precludes any use of SWIR or LWIR for NTI. Is this the intent? SWIR is already very limited by GSD. This is a significant burden. Foreign providers are disseminating NTI at much finer resolutions.

- (12)(iii) Is burdensome. Existing licensees rely on remote ground terminals outside of the United States to route encrypted traffic to US based ground stations. The regulation as drafted will create the impression that licensees cannot pass encrypted traffic through foreign remote ground terminals.

- (12)(v) Is creates unnecessary ambiguity because other radar systems will as a matter of course be intercepted unintentionally.

Definition of Remote Sensing Space System

- Concern around expansion of remote sensing space system definition to include operation from any other celestial body and inclusion of components of the system owned or managed by others
- Support the carve out from remote sensing definition if the primary sensed object is physically attached to the remote sensing instrument.

Definition of Subsidiary or Affiliate

- New definition is vague and not aligned with common understanding; could inadvertently implicate de minimis ownership or distant relationship.
- Recommend reference to definition in existing securities laws for guidance.

Definition of Days

- Not previously defined; now defined as:
  - Less than or equal to 10 = working days
  - Greater than 10 = calendar days
- Different definition of days may cause confusion.
- Suggest specifying business days or calendar days where applicable rather than the defined term.

Definition of Material Fact

- The definition of “material fact” seems unnecessarily broad and would include immaterial statements made in the application or in correspondence provided to the Secretary. The definition should be reworded to include only facts relevant to Parts C and D of Appendix A, which may have been the intent. Such a revised definition would also be more consistent with the definition of “modification.”

Definition of GSD

- Concern that definition is misleading.
- GSD describes the sample distance which is generally not the limiting factor for system resolution.
- GSD is often oversampled relative to the diffraction limited resolution of an optical system.
- Use of GSD as a resolution metric can apply a restriction that is more restrictive than what would be expected by a layperson.

Additional Questions/Comments

- The basis of these proposed regulations center on what is critical to national security. But it omits discussion of what is available commercially from other nations that might limit a U.S. company from selling imagery.
- It says that the analysis shows that about 40% of future systems would likely be considered “low risk” based on past applications. But, before the rapid increase of recent small sat systems, only 19 licenses were issued over 20 years of NOAA licensing. Is this a representative sample?
- Are the same resolution and timeliness rules applicable to sensed images of non-Earth celestial bodies? It seems that no limit at present should be imposed; subject to changes if national security measures become important on other celestial bodies.
- There is an exception for cameras that are “physical attached” to a primary object. What if such camera is removed by a servicing satellite and repurposed? Would the company need a new license at a future date for the same camera?
- High risk category is defined as a “relative risk” to national security. Relative to what? This is not a working or clear definition. It is also tied to “prevalence and capabilities of systems in other nations as well as the regulatory environment in other nations.“ Again, evaluated under what rules and guidelines? Also note that conditions in other nations can change very quickly, and our information may not be complete or timely about their activities.
- As to the debris issue, requiring adherence to the ODMSP is fine, but is that parallel to the requirements for other, possibly competitive, foreign systems? Are we limiting or encouraging U.S. remote sensing?
- Are the specific limits of SAR data limiting to the competitive commercial value of these U.S. systems as compared to foreign SAR commercial products?