

A DOD AND COMMERCE-APPROVED ITAR/EAR-FREE LEGAL FRAMEWORK FOR OPEN SOURCE SATELLITES

Presented by Open Research Institute, Inc.

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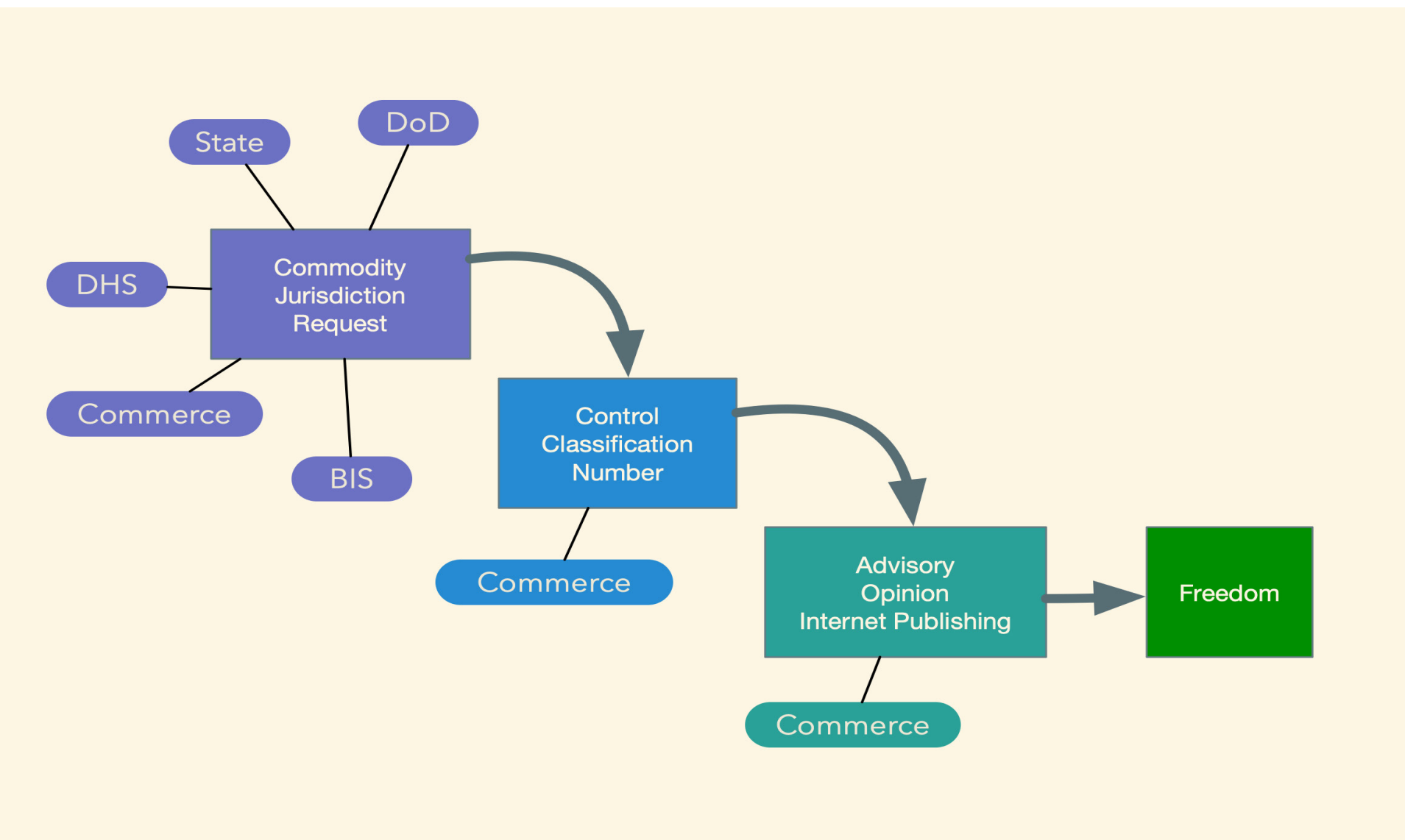
INTRODUCTION

This work addresses a set of regulatory issues that have historically impeded innovative work in the Amateur Satellite Service. Specifically, there has been a perceived lack of clarity with respect to what is permitted under the International Traffic In Arms Regulations (ITAR) and Export Administration Regulations (EAR). ITAR is the United States regulation that controls the manufacture, sale, and distribution of defense and space-related articles and services as defined in the United States Munitions List (USML). EAR is the corresponding set of regulations under the U.S. Commerce Department. Under these regulations, the interpretation of the word “export” is rather broader than the common usage, and can include mere sharing of technical information with foreign persons. Penalties for violation of the regulations can be rather severe. Understandably, amateur radio organizations have been reluctant to participate in cooperative international projects without a clear understanding that this is permissible under the regulations. Lacking such clarity, organizations like AMSAT have usually chosen to restrict access to project information to U.S. persons, which makes it impossible to work transparently or efficiently, or to cooperate with amateur satellite organizations in other countries.

AIM

Overall Strategy

The three-stage approach to solving “The ITAR Problem” for Amateur Satellite Service is illustrated below.



Flow diagram of the three-stage approach with government agencies involved.

State: US Department of State
DoD: US Department of Defense
DHS: US Department of Homeland Security
Commerce: US Department of Commerce
BIS: Bureau of Industry and Security, US Department of Commerce

METHOD

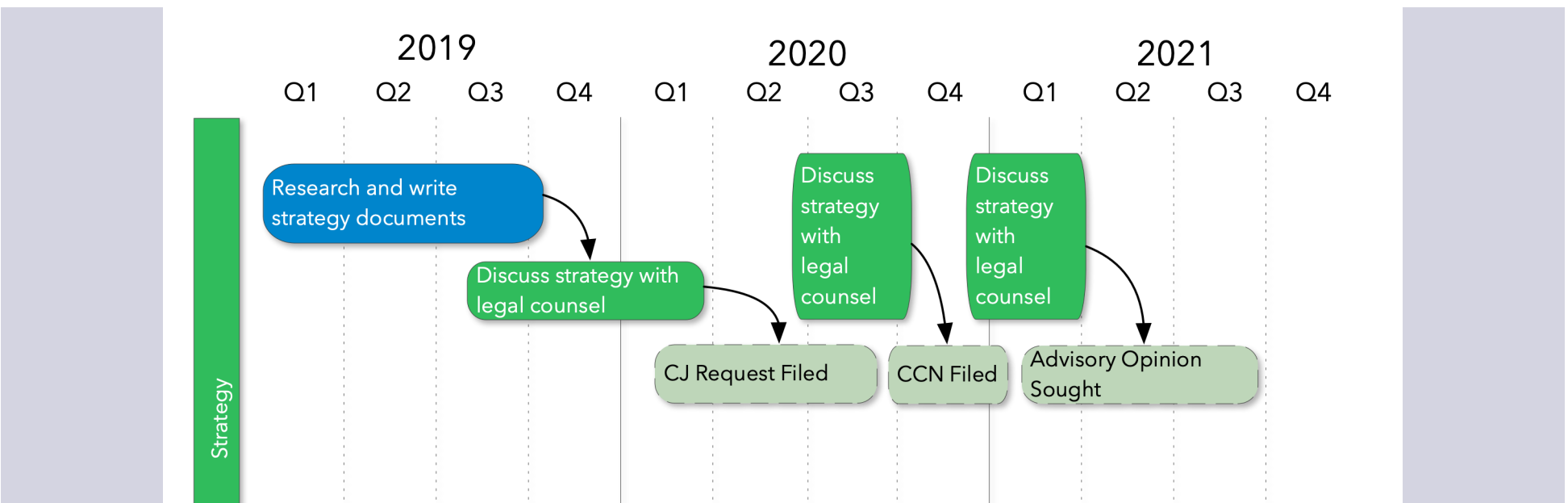
Details of the Effort and Timeline

ORI sought to correct this situation. Consulting with industry lawyers specializing in this sort of work, we submitted a description of the Phase 4 digital transponder system (P4XT) project—the most advanced amateur satellite project of which we are aware—for evaluation under ITAR and EAR. The crucial point in this description was the promise that all work would be open source, made available to the general public as it was created. ITAR and EAR regulations have a general exception for such work, and ORI believed this “carve-out” would be the key. The required filings mirror the regulatory structure.

The first phase is a “Commodity Jurisdiction” (CJ) request, in which we asked the Department of State for a determination that the technologies in P4XT were not subject to regulation under ITAR. Such a ruling must also be approved by the departments of Defense and Homeland Security and by the Commerce Bureau’s Bureau of Industry and Security. This request was submitted in February of 2020 and approved in August 2020.

With that determination in hand, the second phase is a “Commodity Classification Request”, which requests the department of Commerce to determine the category numbers applicable to the technologies involved. This request was submitted in September 2020 and the response issued in January 2021, confirming that these technologies are not regulated under EAR so long as they are published as open source.

The third and final phase was to request an advisory “Opinion Letter” from Commerce explaining that publication on the Internet would be held sufficient for the work to be considered open source, removing an area of possible doubt. This request was submitted on February 2021 and the Opinion Letter issued in September 2021. Following that, a flowchart was produced with the same legal team that advised use on all three previous phases of the legal work. This flowchart is intended to provide an easy-to-understand guide for any project that wants to take advantage of the regulatory relief.

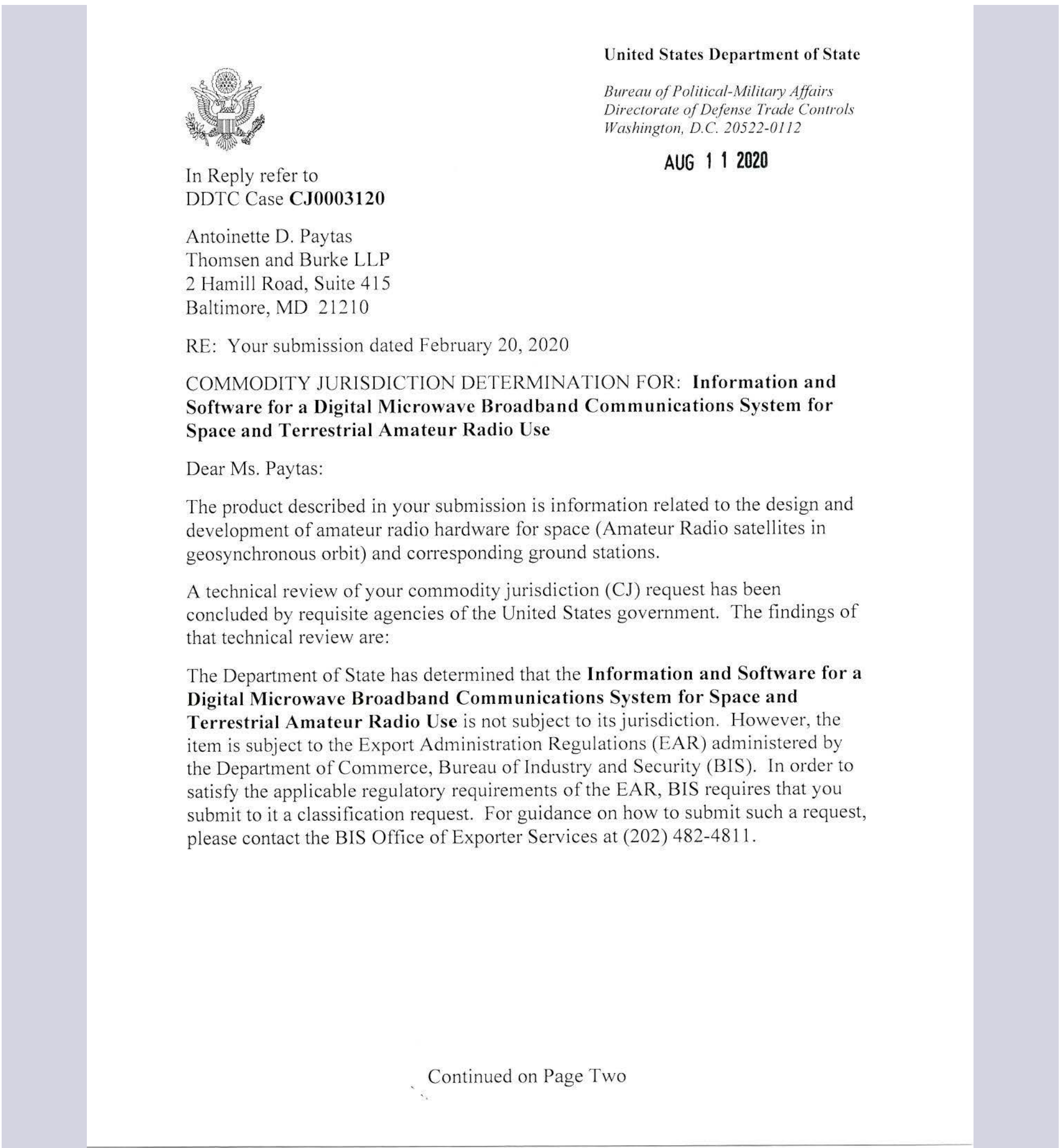


Timeline for the phases of the project.

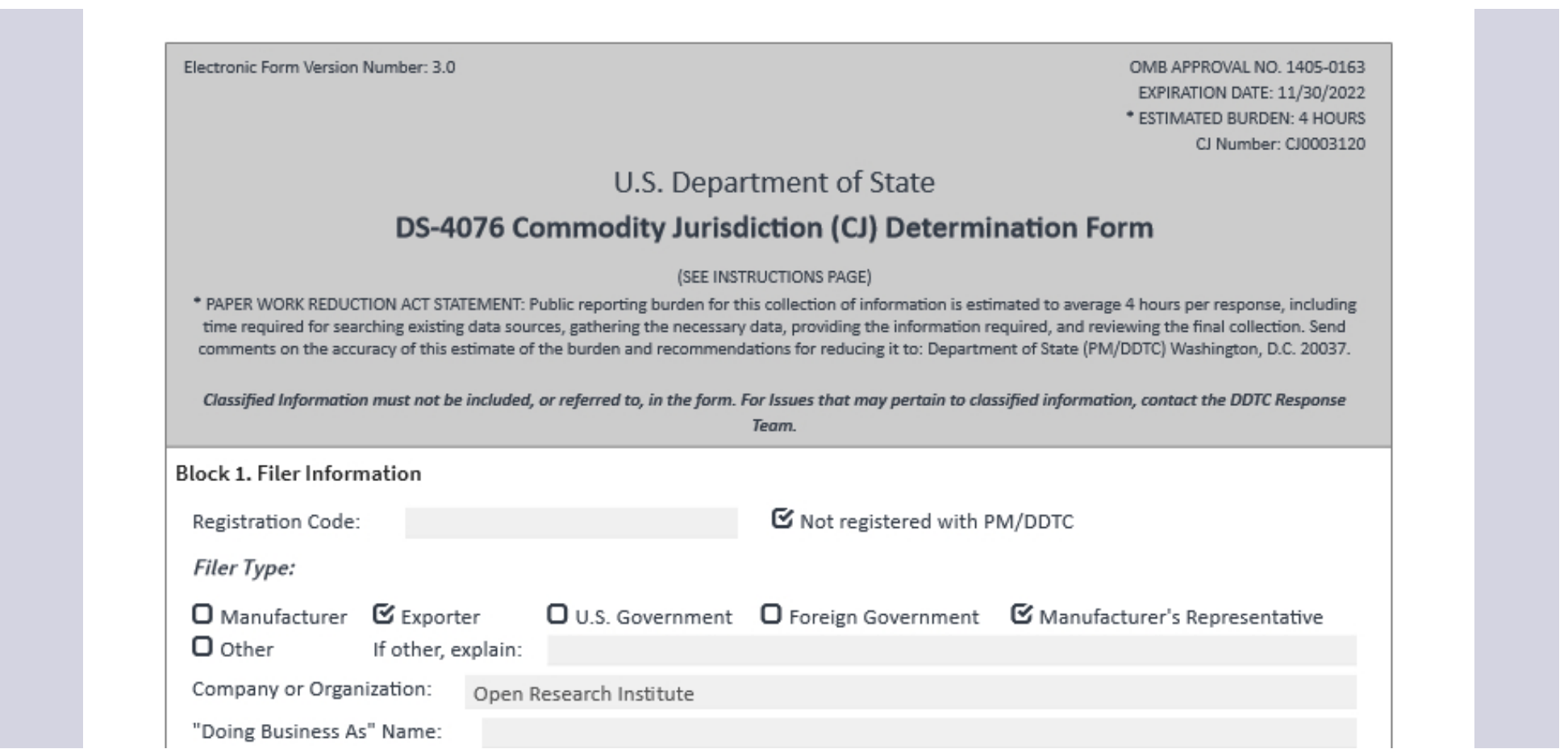
RESULTS

Images

For all three phases of this regulatory process, the government response has been the most positive we could have imagined. The regulatory work was a complete success. With these rulings in hand, we believe that virtually all amateur satellite development work can proceed to be done in the open and with full international cooperation, without fear of running afoul of ITAR and EAR.



Final Determination Letter from the US State Department.



This DS-4076 is available in Open Research Institute GitHub Repository, in the Regulatory section at

<https://github.com/phase4ground/documents/tree/master/Regulatory>

We make all of our work products public.



HOW TO USE THESE RESULTS

The point of the work is to provide significant regulatory relief to the Amateur Satellite Service.

Any project or organization can use these results directly.

Or, they can apply for their own CJ Request, CCN, and advisory opinions themselves using this as a model.

Or, they can write policies based on this work. The policies in use at Open Research Institute since 2018 can provide a starting point.

Go to:

<https://openresearch.institute>

Developer and Participant Policies

CONCLUSION

“If you publish, it must be free.”

-Roszel Thomsen, Thomsen and Burke LLP

ACKNOWLEDGEMENTS

This was a large team effort at Open Research Institute. The work was lead by Michelle Thompson, initial introduction to T&B LLP were made by Bruce Perens, and a review team of 22 individual people were actively engaged throughout a long and complex process.

Legal fees reimbursed by YASME Foundation and ARDC. Total cost of this project was \$29,587.50

