Technology Alert List
Information for Department Advisors and Supervisors

Due to heightened concern for national security, international faculty, scholars, and students seeking US visas face visa delays/security clearance checks for many reasons:

- Because someone’s name (or part of a name) may be on a US government watch list
- Due to citizenship or residence in a country designated as a “state sponsor of terrorism” (Cuba, Iran, Sudan, Syria);
- Due to concerns about technology transfer—particularly for citizens from countries considered to possess nuclear capability (China, India, Israel, Pakistan, and Russia); or
- When the individual will be engaged in activities designated on or related to the Sensitive/Critical Fields List* (or Technology Alert List – TAL)

While some clearances can be processed quickly, visa applicants often encounter lengthy delays for clearances related to the Technology Alert List (TAL). The purpose of these security checks are to protect national security by preventing the export of "goods, technology, or sensitive information" through activities such as "graduate-level studies, teaching, conducting research, participating in exchange programs, receiving training or employment, or engaging in commercial transactions,” and to protect the US from visitors who may wish to cause harm.

Regarding the TAL, when a student or scholar applies for a visa, the Consular Official must make a decision about whether the research area fits within one of the sensitive/critical fields listed in the TAL. If the Consular Official is unsure about whether the research area fits into the category or has concerns, he/she may send the visa application to the Department of State (DOS) in Washington D.C. for advisory assistance. Foreign nationals may be denied a visa if their proposed activity is subject to US technology transfer laws. General TAL information can be found on the DOS website at [http://www.state.gov/documents/organization/86964.pdf](http://www.state.gov/documents/organization/86964.pdf).

Visa Renewal
Non-immigrant (international) students and scholars should carefully assess whether or not visa renewal is necessary as they may remain in the US with an expired visa if they are still pursuing the same objectives and all of their other immigration documents are valid (e.g., passport, I-20/DS-2019 or H-1B approval, proof of student/scholar status). However, if international travel (and visa renewal) is necessary and the visa holder appears to be subject to the security check (“administrative processing”), they should be prepared to provide the Consular Official with as much information as possible (from the applicant and relevant academic department) regarding their academic or research endeavors in addition to required visa application materials.

Supporting Materials from Academic Department Needed for Visa Appointment

An advisor or supervisor of a current or prospective student or scholar who must apply for a US visa should consider providing additional support as noted below including a letter addressing the TAL issue (as related to an individual’s course of study and research) in support of the student/scholar’s visa application. Additional support includes:

1. Letter from the academic advisor/department indicating the degree program with a detailed explanation of the content of the courses that could be considered related to the TAL. If no course work is related, please note and explain this. The letter should also indicate:
   2. goals of student's or scholar’s research and any practical applications;
   3. sources and amounts of any US government money (or funding from US corporations assisting the US government) to be used to support that research; and
   4. describes any export-controlled technology and/or information that will be shared with applicant.

Academic Department Support Letter Guidelines

An effective support letter will directly address the TAL issue and clearly illustrate how the research is or is not related to sensitive areas listed in TAL.

- Address the letter to "Dear Consular Officer,"
- Explain the nature of the student or scholar's research in layman's terms. Avoid using overly-technical language. If the nature of the research is theoretical, this should be clearly stated. If the research is applied, the application should be explained. An advisor should address TAL categories to offer an informed opinion as to whether the research fits into it or not.
The letter should also indicate:
1. Goals of student’s or scholar’s research and any practical applications and
2. Sources and amounts of any US government money to be used to support that research.
3. In some instances, applicants have been asked to obtain a letter that describes any export-controlled technology and/or information that will be shared with applicant, however there does not appear to be a DOS policy to ask these questions. This letter should be addressed to the appropriate consulate. Contact information is available at: http://www.usembassy.gov/

Next Steps
If a student or scholar’s application is selected for a security review, there is little that can be done, except to wait. Generally, the process takes from 30 to 45 days. A concerned advisor or supervisor may wish to consult with OIE for guidance on potential courses of action that, in limited cases, may be available.

Office of International Education Assistance
The Office of International Education can help to determine whether the visa delay stems from the TAL or another issue. If it is determined that the TAL is the reason for the delay, OIE unfortunately cannot facilitate or speed up the processing of the visa application. OIE can review letters and provide updated information that becomes available about the process. Please contact the OIE Advisor responsible for your department by calling or emailing OIE (oie@andrew.cmu.edu).

*Sensitive/Critical Fields List
It is possible that even loose associations with the critical fields indicated below (e.g., student studying in physics) will result in additional security clearances and delayed visa processing. Accordingly, visa applicants should be prepared to provide additional documentation regarding their area of study and research when applying for a visa.

- Conventional Munitions;
- Nuclear Technology, Physics, and Engineering;
- Rocket Systems and Unmanned Air Vehicle;
- Navigation, Avionics and Flight Control;
- Chemical, Biotechnology and Biomedical Engineering;
- Remote Sensing, Imaging and Reconnaissance;
- Advanced Computer/Microelectronic Technology;
- Materials Technology;
- Information Security;
- Laser and Directed Energy Systems Technology;
- Sensors and Sensor Technology;
- Marine Technology; and
- Robotics Urban Planning.

What is the Technology Alert List?
As a matter of US policy, the Technology Alert List (TAL) was created by the US federal government in 2000 as a guideline for consular officials to use in reviewing visa applications. The purpose of this guideline is to prevent the export of "goods, technology, or sensitive information" through activities such as "graduate-level studies, teaching, conducting research, participating in exchange programs, receiving training or employment...". As we understand it, they are screening for illegal technology transfer and a possible undesired military application. Not surprisingly, there are many research fields on the TAL that reflect research that is conducted at CMU. Primarily, these fields would be: chemical and biotechnology engineering, materials technology, information security, robotics, remote sensing and imaging technology, advance computer/microelectronic technology, sensors and sensor technology, and urban planning (including architecture, design and civil engineering). Due to security concerns, the actual TAL is classified. General information may be found on the State Department’s website: https://www.foia.state.gov/

Why are we hearing about the TAL now?
In the past several years, OIE advisors have seen a sharp increase in the number of visa applications that are being scrutinized for relevance to TAL and delayed as a result. From our experience at Carnegie Mellon, most of these applicants are PhD students from China, although students and scholars from other countries have been impacted. TAL may be applied to applicants from any country (including traditional US allies). But, students and scholars from the seven “state sponsors of terrorism” (Cuba, Libya, Iran, Iraq, North Korea, Sudan, Syria) and the five “non-proliferation export control countries” (China, India, Israel, Pakistan, and Russia) seem most likely to be impacted.

How does the visa and TAL process work?
When a student or scholar applies for a visa, the Consular Official must make a decision about whether the research area may fit within one of the categories of the TAL. If the Consular Official is unsure about whether the research area fits into the category, he/she may send the visa application to Washington for review. As of Fall 2016, the process takes about 30 to 45 days in Washington D.C.

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What can the CMU Department do to help students and scholars avoid problems?

Because the TAL addresses categories of research that are considered to be “sensitive,” the academic advisor who will supervise the student’s or scholar’s research is in the best position to explain the nature of the research and relevance (or not) to the TAL categories. An advisor or supervisor of a current or prospective graduate student or scholar who must apply for a US visa abroad may write a letter addressing the TAL issue in support of the visa application of the student’s or scholar’s visa interview.

Research not related to TAL. An effective support letter will directly address the TAL issue and clearly illustrate how the research is not related to sensitive areas listed in TAL. Address the letter to “Dear Consular Officer,” and explain the nature of the student or scholar’s research in layman’s terms. Do not use overly-technical language. If the nature of the research is theoretical, this should be clearly stated. If the research is applied, the application should be explained. An advisor uses TAL categories to offer an informed opinion as to whether the research fits, or not. This letter should be addressed to the appropriate consulate. Contact information is available on the US Department of State website: [http://usembassy.state.gov](http://usembassy.state.gov)

Research related to TAL. For those research areas which are directly related to activities listed on the TAL, students and scholars may be general (but always truthful) about the nature of the research. In the event that the US consular officer targets the application for review, a wait of at least 30 days is inevitable while the case is checked and cleared in Washington, DC. Students and scholars who study “sensitive” areas and are from one of the “non-proliferation export control countries” (China, India, Israel, Pakistan, and Russia) in particular may consider delaying or postponing any discretionary international travel when a new visa is required. If travel is unavoidable and a new visa is necessary, supervisors should be prepared for the possibility of a long delay preventing the student or scholar’s timely return to the US.

What can be done once the application is sent to Washington?

Once a student or scholar’s application is sent to Washington for review, there is little that can be done, except to wait. In Spring 2005, this process takes about 30 to 45 days, according to a U.S. Department of State representative. A concerned advisor or supervisor may contact a US Congressional representative for assistance. However, even with congressional intervention, the perception of national security needs will likely outweigh the advisor or department’s concern about delayed arrival of a student or researcher. CMU’s Office of Government Relations can provide contact information, and it is always a good idea to inform them of actions involving Congressional representatives.

What can the Office of International Education do to help?

The Office of International Education can help to determine whether the visa delay stems from the TAL or another issue. If it is determined that the TAL is the reason for the delay, OIE unfortunately cannot facilitate or speed up the processing of the visa application, for the reasons stated in this handout. OIE can review letters and provide updated information that becomes available about this process. Please contact the Foreign Student/Scholar Advisor responsible for your department by calling or emailing OIE.