US Naval Research Laboratory

“The Inevitable will never happen but the unexpected will.”

The Corporate Laboratory of the Navy and Marine Corps
“Government Should Maintain A Great Research Laboratory To Develop Guns, New Explosives And All The Technique Of Military And Naval Progression Without Any Vast Expense.”

THOMAS A. EDISON

THE NEW YORK TIMES MAGAZINE
SUNDAY, MAY 30, 1915

• May 7, 1915: British ocean liner Lusitania sinks (128 US fatalities)

• October 7, 1915: SECNAV Daniels establishes Naval Consulting Board with Edison Chair “for utilizing the natural inventive genius of Americans to meet the new conditions of warfare as shown abroad …”

• August 29, 1916: Congress appropriates funds to establish the Lab

• July 2, 1923: Delayed by WW-I, Assistant Secretary of the Navy, Theodore Roosevelt, Jr. Commissions the Lab at Bellevue.

The Naval Consulting Board
(State, War and Navy Building – 1915)
Working Capital Fund

• NRL is a **Navy Working Capital Fund** activity (vice an appropriated fund activity or mission-funded activity)

• The Navy Working Capital Fund is a **Revolving Fund**: (Operates similar to a private business model)
  • Buyer-seller relationship with customers
  • Charged fixed prices *(stabilized rates)* with goal to break-even

• No lump sum pot of money or federal budget line item to fund NRL.

• Therefore, **NRL charges customers/sponsors for all costs.**
Tech Transfer and Innovation

• **Invention:**
  a new, useful process, machine, improvement, etc., that did not exist previously and that is recognized as the product of some unique intuition  (Patent Law)

• **Innovation:**
  the *act or process of introducing* new ideas, devices, or methods
  An innovation is something original, new, and important—in whatever field—*that breaks into a market* or society  (Wikipedia)
The Innovation Process

- **DISCOVER**
- **DISCLOSE INVENTION**
- **PATENT (Y/N?)**
- **IF Y, PATENT**
- **MARKET/LICENSE**
- **COMMERCIALIZATION**
  - **SELL**
  - **USE**
NRL’s Technology Transition and Transfer

“Technology Transition”: research to the field (military applications)

- Reports
- Patents
- Government Purpose Licenses to fulfill a specific government contract
- Publications

“Technology Transfer”: transfer intellectual property (IP) to a commercial partner or collaborate to generate new IP

- Proprietary Discussions (Confidentiality)
- Material/software transfers
- Collaborations
- Patent licenses
NRL’s Marketing

- NRL TTO’s Website
- Summary Fact Sheets
- Social Media
- YouTube Videos
- Exhibits at Navy Conferences
- Local economic development groups (VA, MD, Gulf Coast)
- Researcher
Primary Mechanisms for Technology Transfer

Non Disclosure Agreements
  - Unpatented, unpublished ideas

Co-operative Research and Development Agreements (CRADAs)

Patent Licenses
Role of the Researcher

• Create the Intellectual Property (the Invention)
  o Patents (Including Patentable Software)
  o Trademarks
  o Software (new for federal employees)

• Disclose, if appropriate

• Assist patent attorney in preparing a patent

• Assist the Tech Transfer Office in marketing
  o Alert TTO of potential commercial uses and companies

• Participate in CRADAs if appropriate

• Licensees often need the lab’s expertise to develop the technology
CRADA Opportunity

- Between NRL and one or more non-Federal parties (company, academia or CoGo) to collaborate on any mutually beneficial R&D
- NRL may provide personnel, services, facilities, and equipment but no funds to the other party.
- The non-Federal party may provide funds, personnel, services, facilities, and equipment.
- IP Rights
  - Subject Inventions (jointly or solely developed):
    - Government purpose rights
    - Non-exclusive license for internal use; option for fee-bearing commercial license.
Licenses

• Commercial Licenses
  o Requires patentable invention, trademark
  o Compensation (fees, royalties).
  o Non-Exclusive vs. Exclusive
  o Diligence requirements.

• Government Purpose Licenses
  o right to manufacture and sell to US Government only; royalty-free
CONTACT INFORMATION
www.nrl.navy.mil/techtransfer/

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