CENTER FOR CYBER WARFARE

FAR Compliant Crowdsourcing

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The pace is picking up

"The **pace** is picking up. As I think about the challenge for our Navy and our nation, **pace** is the one word that I use to describe our strategic environment."
~ CNO, Admiral John Richardson, 17 Jun 2016

Pace of Hardware Production

Table 1. Long-Range Naval Battle Force Construction Plan

Fiscal Year	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46
Aircraft Carrier		1					1					1					1					1					1			
Large Surface Combatant	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	2	3	2	3	2	3
Small Surface Combatant	2	1	1	1	2	2	2	2	1				1		1	1	1	2	2	2	3	4	4	4	4	4	2	3	3	3
Attack Submarines	2	2	2	2	1	2	2	1	2	1	1	1	1	1	1	1	1	1	1	2	2	2	2	1	2	1	2	1	2	1
Ballistic Missile Submarines					1			1		1	1	1	1	1	1	1	1		1											
Amphibious Warfare Ships	1			1		1	1	2	1	1	1	2	1	1	1	1				1				2		1		2	1	1
Combat Logistics Force		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1										1		2	2
Support Vessels		1	1	1	1	2	2	2	2	1	1		1	2	2	2	2	1												
Total New Construction Plan	7	8	7	8	8	10	11	11	9	7	7	8	8	8	9	9	9	7	6	7	7	10	9	10	8	9	8	9	10	10

Fiscal Year	17	18	19	20	21	22
Large Surface Combatants	2	2	2	2	2	2
Attack Submarines	2	2	2	2	1	2

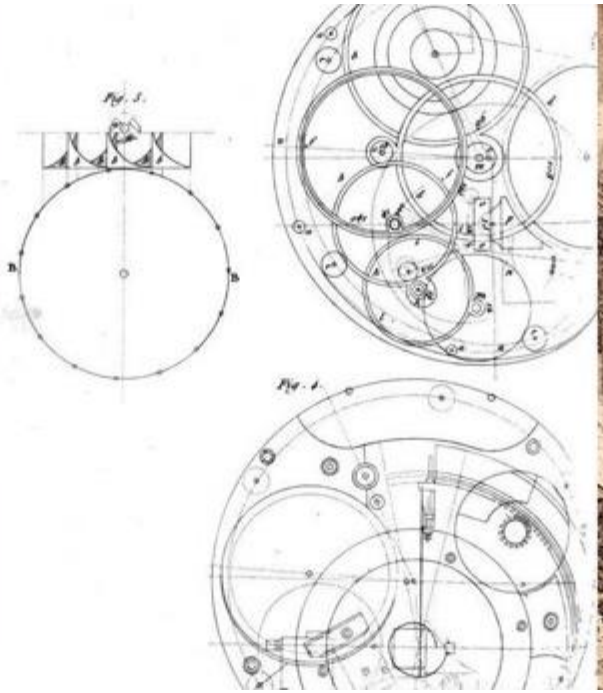
Pace of Hardware Production

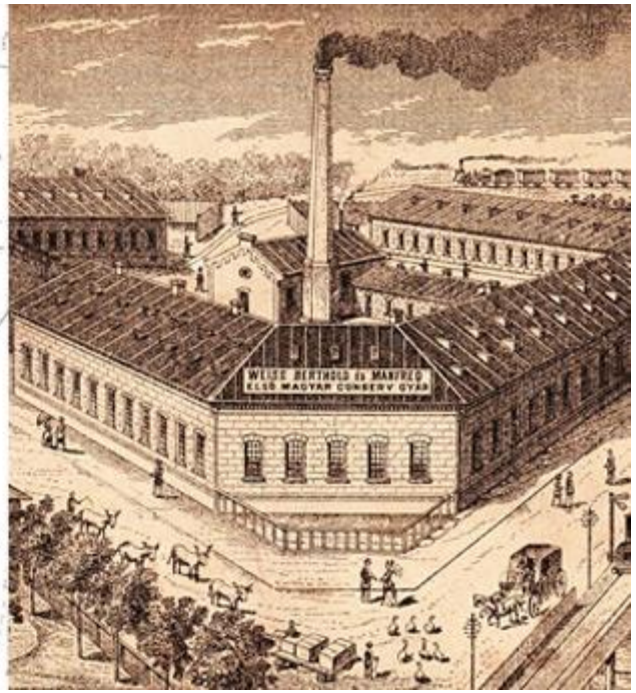
The front face of the Jet Black iPhone 7

Developer	Apple Inc.
Manufacturer	Foxconn, Pegatron (contract manufacturers)
Type	Smartphone
Release date	**1st gen**: June 29, 2007 **3G**: July 11, 2008 **3GS**: June 19, 2009 **4**: June 24, 2010 **4S**: October 14, 2011 **5**: September 21, 2012 **5C**, **5S**: September 20, 2013 **6 / 6 Plus**: September 19, 2014 **6S / 6S Plus**: September 25, 2015 **SE**: March 31, 2016 **7 / 7 Plus**: September 16, 2016

Pace of the Software Economy

Plan for Breach





What broad based approaches have inspired innovation?

How do we reach the global innovation community today?

topcoder™

herox

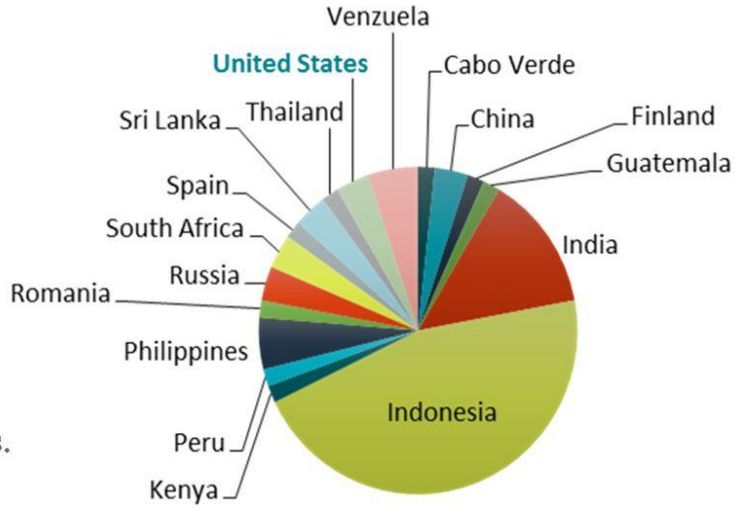
kaggle

TRACK 4: TOPCODER RAPID USER EXPERIENCE CHALLENGE

RUX HACK THE MACHINE RESPONSE STATISTICS

72 Hours	59 Registrants	61 Submissions
11 Topics	144 Post Replies	2,383 Views

HACK THE MACHINE'S GLOBAL REACH



PARTICIPANT LANDSCAPE

- COMMUNITY IMPACT - Historically this RUX is ranked as the most popular RUX on the TopCoder platform, with 35 unique submitters.
- GLOBAL AWARENESS - Solvers from around the world and provided 61 submissions from 17 countries.

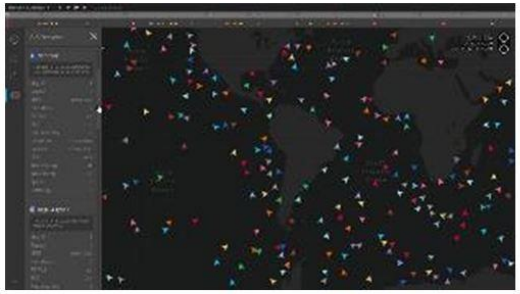
TOPCODER RUX CHALLENGE RESULTS

THE GOAL - Solvers had to provide a clean and direct User Interface to a create maritime scenarios that generate AIS data and highlight inaccuracies in the scenario over time.

EVALUATION THEMES – design, dashboard layout, timeline displays, anomaly detection, and overall creative input.

FIRST PLACE: SHIP BOX

- Handle: eriantoongko
- Country: Indonesia
- Member since 2011



SECOND PLACE: SIM VESSEL

- Handle: gh3ablo
- Country: Philippines
- Member since 2009

THIRD PLACE: SHIP TRACKER

- Handle: chekspir
- Country: Venezuela
- Member since 2009

Navy Awards Frigate Combat Management System Contract To Lockheed Martin

By: Megan Eckstein
August 25, 2016 1:43 PM

A COMBATSS-21 console. Lockheed Martin photo.

The Navy awarded Lockheed Martin a contract worth up to $79.6 million to design and build the Component-Based Total-Ship System – 21st Century (COMBATSS-21) combat management system for the first of the upcoming frigates.

COMBATSS-21 is an Aegis-based system already used on Lockheed Martin's Freedom-variant Littoral Combat Ships, and the Navy announced last summer it would award a sole-source contract to use the system on the follow-on frigates.

$79.6 million

sole source

Center for Cyber Warfare

HACK THE MACHINE
AUSTIN
17-19 FEB 2017
BUILDING A COMMUNITY OF PRACTICE FOR MARITIME CYBERSECURITY

- Navy Owned IP
- 3 World Class Designs
- $12,000
- 3 Days

- Contract awarded to a single vendor for products and services
  - Products deliverables were 3 user interface designs
  - Service component required managing crowdsourced development on Topcoder
- Vendor was a value added partner to the acquisition
  - Translated military requirements into a community challenge
  - Vendor SMEs provided real-time management of community questions during the challenge.

GETonBOARD

ASKmeHOW

"If we need acquisition reform to buy cybersecurity then we are never going to get cybersecurity." ~ CDR Zac Staples…a loosely held religious belief