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The Sixth-Generation Quandary

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<https://hdl.handle.net/10945/53417>

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THE SIXTH-GENERATION QUANDARY

PANEL 12

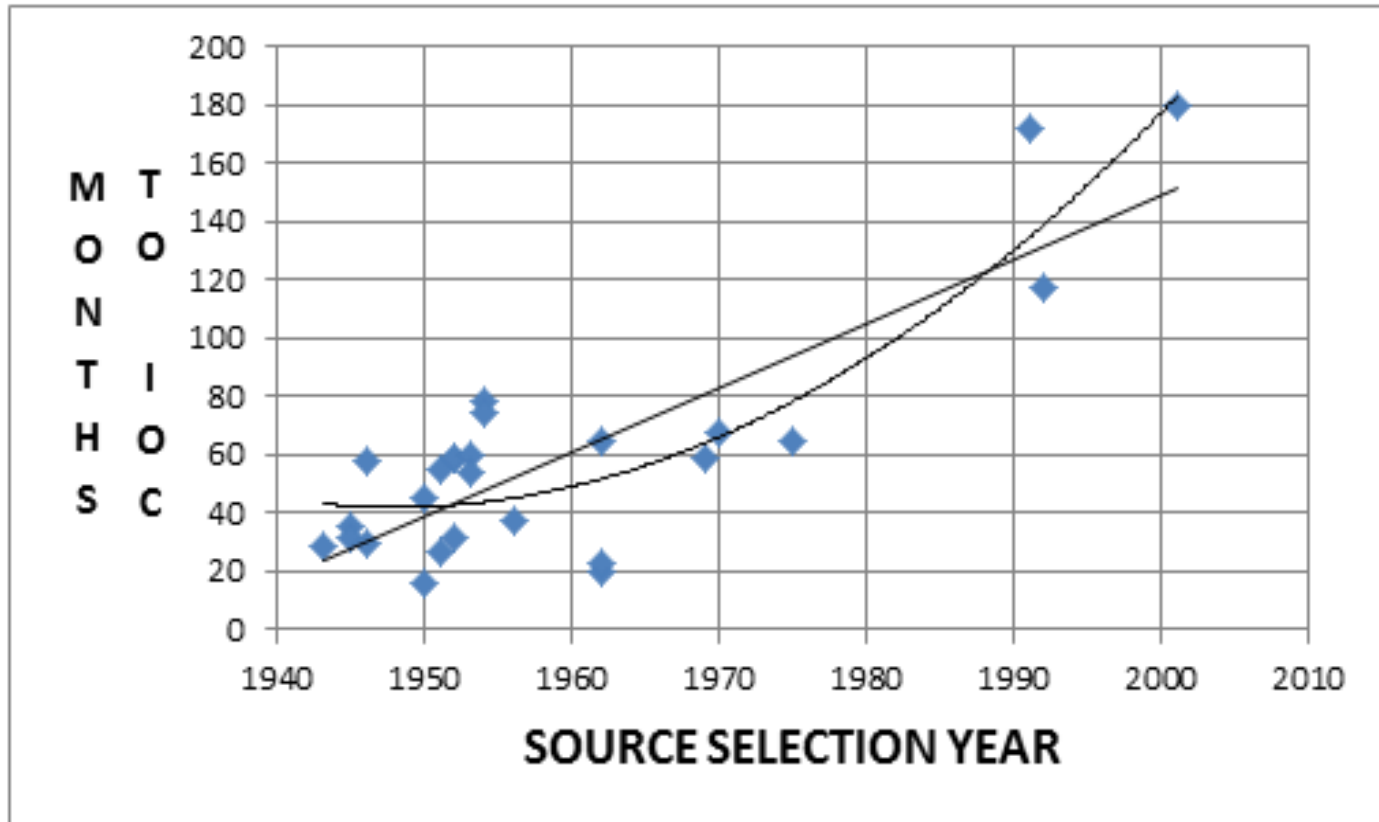
CHIP FRANCK, USAF ACADEMY

BUD UDIS, UNIV OF CO, BOULDER

WHY WE'RE INTERESTED

- RISE OF MULTIPLE NEW MILITARY RIVALS THAT ARE INCREASINGLY AGILE AND SOPHISTICATED
- ... IN AN ERA OF MULTIPLE RMAs
- LONGER TIMES TO FIELD NEW US CAPABILITIES
- QUESTIONS
 - F-35 LESSONS LEARNED?
 - HOW MANY NEW FIGHTERS?
 - WHAT'S INVOLVED IN NEXT-GEN AIR COMBAT?
 - WHAT MIGHT THIS MEAN FOR ACQUISITION PROFESSIONALS?

TIME CURVE FOR U.S. FIGHTER AIRCRAFT



Source: an expanded version of Blickstein, et al., 2011, Table 4.5, p. 48.

IOC in late 2030s for 6th-gen fighter appears fairly optimistic.

OUTLINE

- WHAT WE'VE LEARNED FROM THE F-35 PROGRAM
- HOW MANY 6TH-GEN FIGHTERS? 2, 1, 0?
- CANDIDATE FORCE ELEMENTS FOR NEXT-GEN AIR DOMINANCE
- WHAT ALL THIS COULD MEAN FOR ACQUISITION PROFESSIONALS

F-35 LESSONS

- COST GROWTH ATTRIBUTABLE TO ACQUISITION STRATEGY
- COST GROWTH ATTRIBUTABLE TO REQUIREMENTS GROWTH
- COST GROWTH EVENTS ALSO HAD SCHEDULE CONSEQUENCES
- SCHEDULE DELAYS HAD EFFECTS OUTSIDE THE PROGRAM ITSELF
- JOINT DEVELOPMENT DOESN'T SAVE MONEY

HOW MANY NEW FIGHTERS?

- TWO: 1 NAVY, 1 AIR FORCE
 - F-35 LESSONS
 - REQUIREMENTS DIVERGENCE
- ONE: WITH MULTISERVICE CUSTOMERS
 - CAN WORK ACROSS SERVICES AND COUNTRIES
 - ... E.G., F-4 AND F-18
 - MULTI-SERVICE OPERATIONAL EMPLOYMENT, BUT NOT JOINT DEVELOPMENT

NO NEW FIGHTERS

- WE CAN'T GET THERE FROM HERE (“TIME CURVE,” A PREVIOUS SLIDE)
- THERE ARE MORE IMPORTANT THINGS TO PURSUE
 - WEAPONS: TOMAHAWK UPGRADES, HYPERSONIC MISSILES, AMRAAM UPGRADE OR REPLACEMENT, A NEW PHOENIX, UAVS (INCLUDING SWARMS),
 - VEHICLES WITH LARGE MAGAZINES: WEAPONS TRUCKS, ARSENAL AIRCRAFT, ARESENAL SHIPS, ...
 - FINISH THE NAIL SOUP: MAKE THE NETWORK FUNCTION WELL – WHICH MEANS SOLVING A NUMBER OF INTEROPERABILITY PROBLEMS – INCLUDING CULTURAL

F/A-18: One can suit many

- US NAVY, PLUS SEVEN FRIENDLY NATIONS
- US NAVY UNAMBIGUOUS PROGRAM LEAD
- WELL-DEFINED, ACTIVE COMMUNITY GOVERNANCE STRUCTURE, e.g., committees for Requirements, Logistics, and Structural Integrity.
- SATISFACTORY SOLUTIONS FOR TECH TRANSFER PROBLEMS – WITH NAVY AS CHAMPION

WHAT THIS LIKELY MEANS FOR ACQUISITION PROFESSIONALS

- REQ'TS PROCESS INCREASINGLY IMPORTANT FOR FIELDING WARFIGHTING COMPLEXES (vs. WARFIGHTING SYSTEMS)
- PLATFORM-CENTRIC ACQUISITION DECLINING, SYSTEM-OF-SYSTEMS MORE IMPORTANT
 - SYSTEMS OF SYSTEMS HARDER TO MANAGE BUT SERIOUS EFFORTS UNDERTAKEN TO DEVELOP TOOLS AND METHODS
- THE SIXTH-GEN QUANDARY AFFECTS REQUIREMENTS, PLANNING, AND ACQUISITION MANAGEMENT COMMUNITIES.