

# Director of Intelligence Proposed Research Topics

*Suggested Graduate Program Thesis Topics*



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## DIRINT Suggested Graduate Program Thesis Topics



In an effort to align the Marine Corps Intelligence Enterprise investment in the Special Education Program and Professional Military Education Programs with the real problem-solving needs of our Service the Director of Intelligence, solicits thesis topics from operating force and supporting establishment

The DIRINT's intent in gathering and disseminating these topics is to encourage USMC Intelligence Officers in the Special Education Program to co research and write on topics that matter most to the Marine Corps Intelligence, Surveillance and Reconnaissance Enterprise (without infringing on academic freedoms). Topics can cover virtually any matter of interest across the DOTMLPF spectrum. The key point is that the topics

should have some linkage to the Enterprise.

As this initiative matures, the DIRINT's intent is to assign each student a mentor from within the Intelligence Enterprise to assist the student with his or her research. Additionally, thesis topic sponsors may provide TAD or other funding to support the students' research efforts.

Manpower and Training Branch is coordinating across the Enterprise to identify key intelligence billets for Special Education Program graduates. The DIRINT's intent is for the Occupation Field Sponsor to assist Manpower Management Division with identifying for each program graduate an appropriate payback billet that directly ties to the thesis topic.

Intelligence Officers pursuing graduate degrees at Intermediate or Top Level Schools are also encouraged to conduct research on one of these topics.

If you choose to conduct research or write on one of the DIRINT's topics, notify the Topic Originator and the Chief, Intelligence Manpower and Training Branch (POC info below).

The DIRINT's list of these topics will be updated regularly. To add a topic to the list, contact, the Chief, Intelligence Manpower and Training Branch at 703-614-4022; [sean.m.mcbride1@usmc.mil](mailto:sean.m.mcbride1@usmc.mil).

<b>Topic</b>	<b>Research Area</b>	<b>Originator</b>	<b>POC Info</b>
<b>Acquisition</b>	Transitioning Science or Technology Investments into Battlefield Capabilities from Systems Integration Laboratories to Service Level Intelligence Programs.	LtCol Joe Moffatt, Operations Officer, Marine Corps Intelligence Activity	703-432-7520 jmoffatt@mcia.osis.gov
<b>Acquisition</b>	Instilling Programmatic Simplicity and Cost Effectiveness through the Migration and Convergence of Intelligence Material Capability Sets.	LtCol Joe Moffatt, Operations Officer, Marine Corps Intelligence Activity	703-432-7520 jmoffatt@mcia.osis.gov
<b>Acquisition</b>	Adopting an Enterprise Requirements Plan (ERP) Approach to "Generate" vice "Write" JCIDS Requirements through Semantically Rich, Machine-Readable Language.	LtCol Joe Moffatt, Operations Officer, Marine Corps Intelligence Activity	703-432-7520 jmoffatt@mcia.osis.gov
<b>Cyber &amp; Intelligence</b>	As USMC cyber functions, activities, and capabilities within the Marine Corps become more mature, there are areas where cyber and intel may remain separate, merge, or have a supporting/supported relationship. Can we define what mission sets should belong to cyber, intel, or a merged capability? What are the boundaries of cyber and intel interns of concept of employment, command relationships, and legal and operation authorities? Should there be any modifications to those boundaries?	LtCol Thomas Naughton, Intel Dept, HQMC	571-256-9287 thomas.naughton@usmc.mil
<b>Electronic Attack Techniques</b>	MAGTF Electronic Attack requires reanalysis. What enemy C2 capabilities are we likely to face in the future? Future EA techniques may need to be looked at from the perspective of data links versus the predominant Layer 1 OSI layer. Different dimensions may need to be analyzed to determine appropriate techniques that could be utilized when considering Software Radios, Platform Independent Module, Platform Dependant Module, software controlled smart antennas via an open standard, effective radio power settings that support incremental power output settings and the availability of Open Software. Some research and travel support may be available to interested students.	David Coe, Intel EW Team Engineer, PM Intelligence Systems, PG12 CINS, Marine Corps Systems Command	703-432-4046 david.coe@usmc.mil

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<b><i>EW Battle Management</i></b>	The integration and management of Electronic Warfare capabilities across the MAGTF is diverse. With multiple ground-based Electronic Warfare (EW) capable platforms (CREW, CESAS, RREP, MEWSS) spread out across the battle field, aviation assets, and CREW; how do we link them together to establish an EW enterprise? How do we deconflict EW, COMINT, and Communications? Some research and travel support may be available to interested students.	Michael Stanford, Intel EW Team Lead, PM Intelligence Systems, PG12 CINS, Marine Corps Systems Command	703-432-4052 michael.stanford@usmc.mil
<b><i>Federal Acquisition &amp; Procurement</i></b>	The acquisition of IT and Intel equipment and services with two major overseas contingencies and numerous smaller global counterterrorist/ counterinsurgency operations ongoing has showed major inadequacies within the federal acquisition and procurement system. The momentum of the procurement of intel systems, the tech refresh of those systems, the rapid pace of commercial technology advancement, and the pact of buying IT equipment and services is in direct conflict with DoD 5000 series program requirements. DoD 5000 doesn't accommodate the procurement of new technologies, particularly for ACAT IV and urgent need programs that the operating forces wanted fielded in month's vs years. We have been working in these confines for a long time, and as budgets get tighter (read more competition which takes more time), and expectations of the war fighter increase, we will come to critical mass soon. Will we be able to adequately support the war fighter in this situation? Some research and travel support may be available to interested student.	Scott Bishop Contracting Officer, PM Intelligence Systems, PG12 CINS, Marine Corps System Command	703-432-4118 scott.p.bishop@usmc.mil

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<b><i>Foreign Military Acquisition Strategies</i></b>	What are the acquisition priorities of the BRIC countries (Brazil, Russia, India, and China)? What are the challenges that will face in achieving their acquisition goals? If achieved, how will these goals shape the global and regional security environment? What are the USMC OTMLPF implications?	LtCol Joe Moffatt, Operations Officer, Marine Corps Intelligence Activity	703-432-7520 jmoffatt@mcia.osis.gov
<b><i>Information Assurance</i></b>	Analysis of our ability to protect sensitive information and the Information Assurance (IA) process within DoD. What is its effectiveness, and impacts to the ability to fielding a new software baseline. What can be learned from commercial industry practices? How does it affect the operating forces? Some research and travel support may be available to interested students.	Mr. Dan Fitzgerald, Deputy Program Manager, Intelligence Systems, PG12 CINS, Marine Corps Systems Command	703-432-4103 daniel.fitzgerald@usmc.mil
<b><i>Information Management</i></b>	What are the implications of cloud computing for Marine Corps Intelligence networks, systems, and operation and concepts?	Mr. W.G. Melton ADIRINT for Resources Intelligence Department	Maj Derek Diorio 703-697-6230 derek.diorio@usmc.mil
<b><i>Information Management</i></b>	What are the implications of cloud computing for Marine Corps Intelligence networks, systems, and operation and concepts?	Mr. W.G. Melton ADIRINT for Resources Intelligence Department	Maj Derek Diorio 703-697-6230 derek.diorio@usmc.mil
<b><i>Information Management</i></b>	Work flow modeling in intelligence units and organizations.	Mr. W.G. Melton ADIRINT for Resources Intelligence Department	Maj Derek Diorio 703-697-6230 derek.diorio@usmc.mil
<b><i>Information Management</i></b>	Intra- and inter-domain management of intelligence data and information.	Mr. W.G. Melton ADIRINT for Resources Intelligence Department	Maj Derek Diorio 703-697-6230 derek.diorio@usmc.mil
<b><i>Information Management</i></b>	Achieve a common computing environment across MCISR-E.	Mr. W.G. Melton ADIRINT for Resources Intelligence Department	Maj Derek Diorio 703-697-6230 derek.diorio@usmc.mil

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<b><i>Information Management</i></b>	Tackling the Data Glut Challenge from the Tactical Level up: Planning, Identifying, Exploitation & Disseminating Timely, Relevant Bits.	LtCol Joe Moffatt, Operations Officer, Marine Corps Intelligence Activity	703-432-7520 jmoffatt@mcia.osis.gov
<b><i>Intelligence Analysis</i></b>	Achieving a "One Desktop" Solution for Analysts and Operators (convergence of CIDNE, ML, TIGR, etc.)	LtCol Joe Moffatt, Operations Officer, Marine Corps Intelligence Activity	703-432-7520 jmoffatt@mcia.osis.gov
<b><i>Intelligence &amp; Communications Combat Lessons Learned and New Requirements</i></b>	Analysis of Intelligence and Communications lessons learned topics from combat operations. How effective have our processes been, and how might these processes be made more effective? What roles and missions in the combat development process might be streamlined to make this process faster? Some research and travel support may be available to interested student.	Mr. Dan Fitzgerald, Deputy Program Manager, Intelligence Systems, PG12 CINS, Marine Corps Systems Command	703-432-4103 daniel.fitzgerald@usmc.mil
<b><i>Intelligence &amp; Service Title 10 Activities</i></b>	What are the methods and means by which USMC intelligence capabilities can best support the Commandant's Title X responsibilities of organizing, equipping, training, and providing forces to support National Command Authority objectives? How do the Marine Corps clearly articulate intelligence requirements, satisfy those requirements and provide intelligence products which support the planning, development, acquisition and sustainment of USMC capabilities (equipment, training, and manpower) to support future USMC missions? Are there models which can be used to better forecast future threat environments and enemy capabilities?	Ms Cheryl Young, Intel Dept, HQMC	703-614-4426 cheryl.young@usmc.mil

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<b><i>Intelligence Information Flow</i></b>	The availability of Intel information has exploded resulting in data overload for Intel analysts and commanders. Research and propose how we can better manage & process the information flow beyond the Intel enterprise to support integration into combat decision cycles at various echelons of the MAGTF, Research and propose how we will ultimately merge all this data into an understandable, useful repository that drives actionable decision making. Some research and travel support may be available to interested students.	Mr. John Powers, Program Manager, Intelligence Data Fusion & Dissemination (IDF&D) Systems, PG12 CINS, Marine Corps System Command	703-432-4267 john.w.powers@usmc.mil
<b><i>Intelligence Systems Architecture</i></b>	Constructing a Service-Wide Enterprise Architecture through an Incremental, Evolutionary, Product Line Architecture Approach that mirrors Service War fighting Functions (IPISR PLA + IDU PLA + DCGS PLA = MCISR EA) + C2 PLA + FORCEPRO PLA + LOG PLA + MANEUVER PLA + FIRE PLA = USMC EA).	LtCol Joe Moffatt, Operations Officer, Marine Corps Intelligence Activity	703-432-7520 jmoffatt@mcia.osis.gov
<b><i>Predictive Analysis</i></b>	What are the most likely anti-access/area denial threats in the next 15-20 years? Where are these threats most likely to occur? How can they be deterred or countered? What are the DOTMLPF implications?	LtCol Joe Moffatt, Operations Officer, Marine Corps Intelligence Activity	703-432-7520 jmoffatt@mcia.osis.gov
<b><i>Predictive Analysis</i></b>	What are the top 5 opportunities for USMC engagement in the next 15-20 years? Where are these opportunities most like to occur? What will be the primary threats and challenges? What are the DOTMLPF implications?	LtCol Joe Moffatt, Operations Officer, Marine Corps Intelligence Activity	703-432-7520 jmoffatt@mcia.osis.gov
<b><i>Predictive Analysis</i></b>	What will an evolved hybrid threat ("Hybrid War 2.0") look like? What are the likely TTP's of an evolved hybrid adversary? Where is this threat most likely to operate? What are the likely DOTMLPF implications?	LtCol Joe Moffatt, Operations Officer, Marine Corps Intelligence Activity	703-432-7520 jmoffatt@mcia.osis.gov
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<b>Predictive Analysis</b>	Who are our most likely competitors for control of the global commons? How will competition with these competitors shape the future security environment? What are the DOTMLP implications for the USMC?	LtCol Joe Moffatt, Operations Officer, Marine Corps Intelligence Activity	703-432-7520 jmoffatt@mcia.osis.gov
<b>Predictive Analysis</b>	How will climate change affect the emerging security environment? Where will climate change have the most impact? What will be the threats and challenges to countering this threat? What are the DOTMLPF implications?	LtCol Joe Moffatt, Operations Officer, Marine Corps Intelligence Activity	703-432-7520 jmoffatt@mcia.osis.gov
<b>Predictive Analysis</b>	Will Distributed Denial of Service (DDoS) operations - similar to what we saw in Estonia (2006) -- pose a threat to future USMC operations? Where and how are these attacks likely to emerge? How can they be deterred, countered, or defeated?	LtCol Joe Moffatt, Operations Officer, Marine Corps Intelligence Activity	703-432-7520 jmoffatt@mcia.osis.gov
<b>Predictive Analysis</b>	What are the top 5 technology trends likely to shape the security environment in the next 15-20 years?	LtCol Joe Moffatt, Operations Officer, Marine Corps Intelligence Activity	703-432-7520 jmoffatt@mcia.osis.gov
<b>Predictive Analysis</b>	Where is resource competition most likely to create conflict in the next 15-20 years? Can this conflict be prevented through USMC engagement? If so, what are the threats and challenges to doing so?	LtCol Joe Moffatt, Operations Officer, Marine Corps Intelligence Activity	703-432-7520 jmoffatt@mcia.osis.gov
<b>Predictive Analysis</b>	How will the shifting nature of partnerships / coalitions in the post-OIF/OEF security environment affect USMC operations? Who will be our most likely partners/allies? How can we improve interoperability with these potential "friends"?	LtCol Joe Moffatt, Operations Officer, Marine Corps Intelligence Activity	703-432-7520 jmoffatt@mcia.osis.gov



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<b><i>Rapid Prototyping Model</i></b>	What are some models (other Services other government agencies), processes, and best practices to create and sustain a rapid prototype and innovation activity for USMC intelligence capabilities? Items to consider are effectiveness in terms of transitioning prototypes to Program of Record capabilities; adherence/compliance to law, policy, and regulation (e.g., Federal Acquisition Regulation – RAR); and current USMC construct for research and development, prototyping activities, and systems acquisition.	Mr. Jeffrey Small Intel Dept HQMC	703-614-4503 jeffrey.s.small@usmc.mil