



**Sovereignty, Security and the F35**

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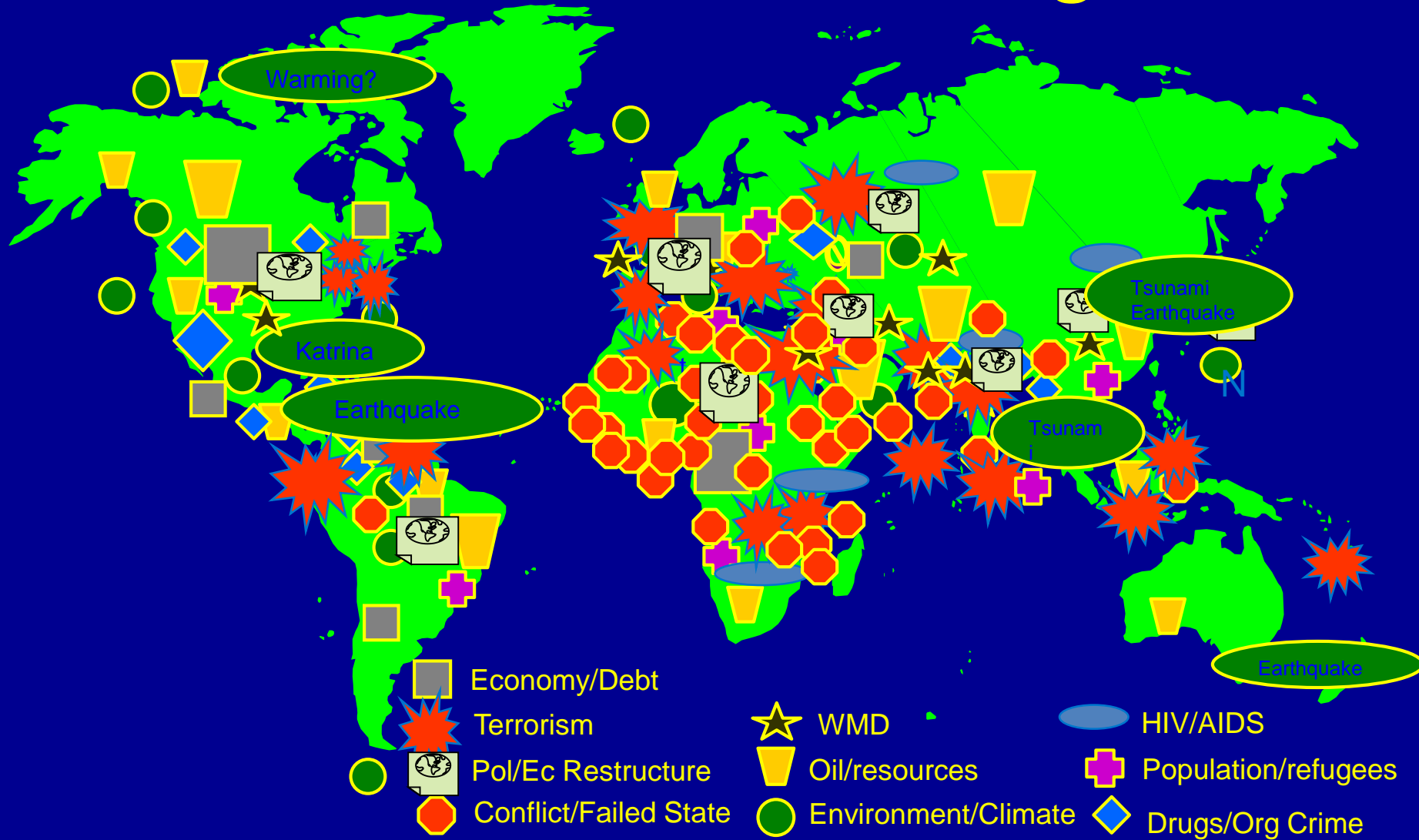
**PROBUS Club of North Shore Vancouver**

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# Global Security Challenges

## What in the World is Going On?



# Top 10 International Issues Affecting Canada's Interests

- Globalization / International Economy - Debt, Credit and Investment capital
- Terrorism / Militant Islamists, including cyber-terrorism cyber-warfare and NBC Weapons of Mass Destruction
- World Order – Political/economic restructuring in: North America and EU in general; Eastern Europe – Russia, Ukraine; Middle East / SW Asia – Syria, Yemen, Iraq, Iran; Central/East Asia – China, India, North Korea; Latin America – Brazil, Venezuela; Africa - Egypt, Libya, Tunisia, etc virtually everywhere!
- Regional Conflict / Failed States - Africa (Sudan, Congo, Liberia, Sierra Leone, Cote d'Ivoire...) - SW Asia (Afghanistan, Iraq, Pakistan, Palestine) - Latin America /Caribbean (Haiti) - Eastern Europe (Ukraine, Balkans)
- Weapons Proliferation (including WMD) - North Korea, Iran

# Top 10 International Issues Affecting Canada's Interests

- Resources (including energy/oil, water) - Middle East, Russia, US
- Environment / Climate change / Natural disasters – The Arctic, China, India
- Pandemic Disease e.g. Swine/ Bird Flu (Mexico,China), HIV/AIDS (Africa, China, Russia), Ebola (Africa)
- Refugees/ Population Migration/ Human trafficking - Asia, Latin America, Eastern Europe, North America
- Drugs, Organized Crime, Money Laundering – Virtually global but especially South / Central America, Southwest and South Asia, Eastern Europe,

# International Affairs Instruments of Power

## DIME

### DIME Components

Diplomatic: Negotiation between nations through official channels.

Information: Knowledge of specific events or situations that has been gathered or received by communicating intelligence or news.

Military: Of or relating to the armed forces, use of force.

Economic: Of or returning to the production, development, and management of a nation's national wealth.

# Biggest threat to Canada's Security.....

A Canadian public that is:

- Uninformed ( a voluntary affliction )
- Misinformed (by superficial media, especially social media )
- Disinformed ( victims of uncritical acceptance of manipulated and biased information by special interest groups )

# Major Public Shortages Affecting Canada's Security

- Numeracy – being able to balance a cheque book, understand statistics
- Systems Thinking – being able to “connect the dots”
- Critical Thinking and Analysis – being able to assess quality of data and information



# Sovereignty and Security

- Sovereignty is the quality of having supreme, independent authority over a geographic area
- The first and most important obligation of Government is the security of the country, its sovereignty and the safety and well-being of its citizens.
- Protecting Canada's national interests – Security, Prosperity, Stable World Order, Promotion of Values (Democracy, Rule of Law, Freedom, Human Rights)

# Canada First Defence Strategy

## Canadian Armed Forces Roles

- **Defending Canada First and foremost, the Canadian Forces must ensure the security of our citizens and help exercise Canada's sovereignty.**
- **Defending North America -Delivering excellence at home also helps us contribute to the defence of North America in cooperation with the United States, Canada's closest ally.**
- **Contributing to International Peace and Security -As a trading nation in a highly globalized world, Canada's prosperity and security rely on stability abroad, to make a meaningful contribution across the full spectrum of international operations, from humanitarian assistance to stabilization operations to combat.**

# Canada's Fundamental Interests

- Security – Defence of Canada and North America - “Freedom from Fear”
- Prosperity – Economic well-being of Canadians - “Freedom from Want”
- Stable World Order – Contributes to Security and Prosperity
- Promotion of Canada's Values – Democracy and Rule of Law, Freedom, Social Justice – Contribute to Stable World Order

# NORTH AMERICA



# North American Defence

- May 1938 – Roosevelt / McK-King at Queen's U
- Aug 1940 – Ogdensburg Agreement
- Feb 1947 - Bilateral Agreement with U.S. on equipment, tactics and shared facilities
- Apr 1949 – NATO Charter
- May 1958 – NORAD Agreement – Continuing today

# Facts about Canada

- Second largest country in the world – 9,985 million square kilometers
- World's longest coastline on three oceans - - 202,080 kilometers
- Population 34.483 million (36<sup>th</sup> in the world)
- Gross Domestic Product US \$1.85 Trillion (PPP 2012) (15<sup>th</sup> in the world)
- GDP / Capita -US \$ 44K (PPP 2014)(15<sup>th</sup> in the world)
- Largest Nation with only one bordering state – 8893 km incl 2477 km with Alaska
- 90% of population living within 160 km of US border
- A country of strategic distances and population distribution
- Do we accept the 'involuntary security guarantee' or 'defend against help'?

# Facts about Canada's North (of 60)

- Area – 3.9 million sq km – 39.2% of Canada's total
- Population – 111.7 thousand - 0.3 % of Canada's total
- Yukon- 30,400, Northwest Territories – 41,500
- Nunavut- 29,500
- GDP –\$8.78 B – 0.6% of Canada
- GDP/Capita - \$78.95K – highest in Canada
- Main industries – Mining, Tourism

# Facts about Canada's North (of 60)

## Towns and Population

Nunavut – 28 towns, 30K population (85% Inuit) in 3 administrative regions with total area 2 million sq km

Northwest Territories – 34 towns in 5 regions, 42K population in 5 administrative regions with total area 1.14 million sq km

Yukon - 17 towns, 35K population, area 475K sq km







CFS Alert

FOL Inuvik

Resolute Bay

FOL Iqualuit

FOL Yellowknife

FOL Rankin Inlet

# Facts about Canada's North (of 60)

## Distances in the North

Ottawa to Resolute Bay – 2118 miles

Ottawa to Alert – 2592 miles

Iqaluit to Resolute Bay – 982 miles

Iqaluit to Inuvik – 1768 miles

Iqaluit to Rankin Inlet -733 miles

Iqaluit to Alert – 1305 miles

Resolute Bay to Inuvik – 933 miles

Resolute Bay to Goose Bay – 1760

Resolute Bay to Rankin Inlet – 828 miles

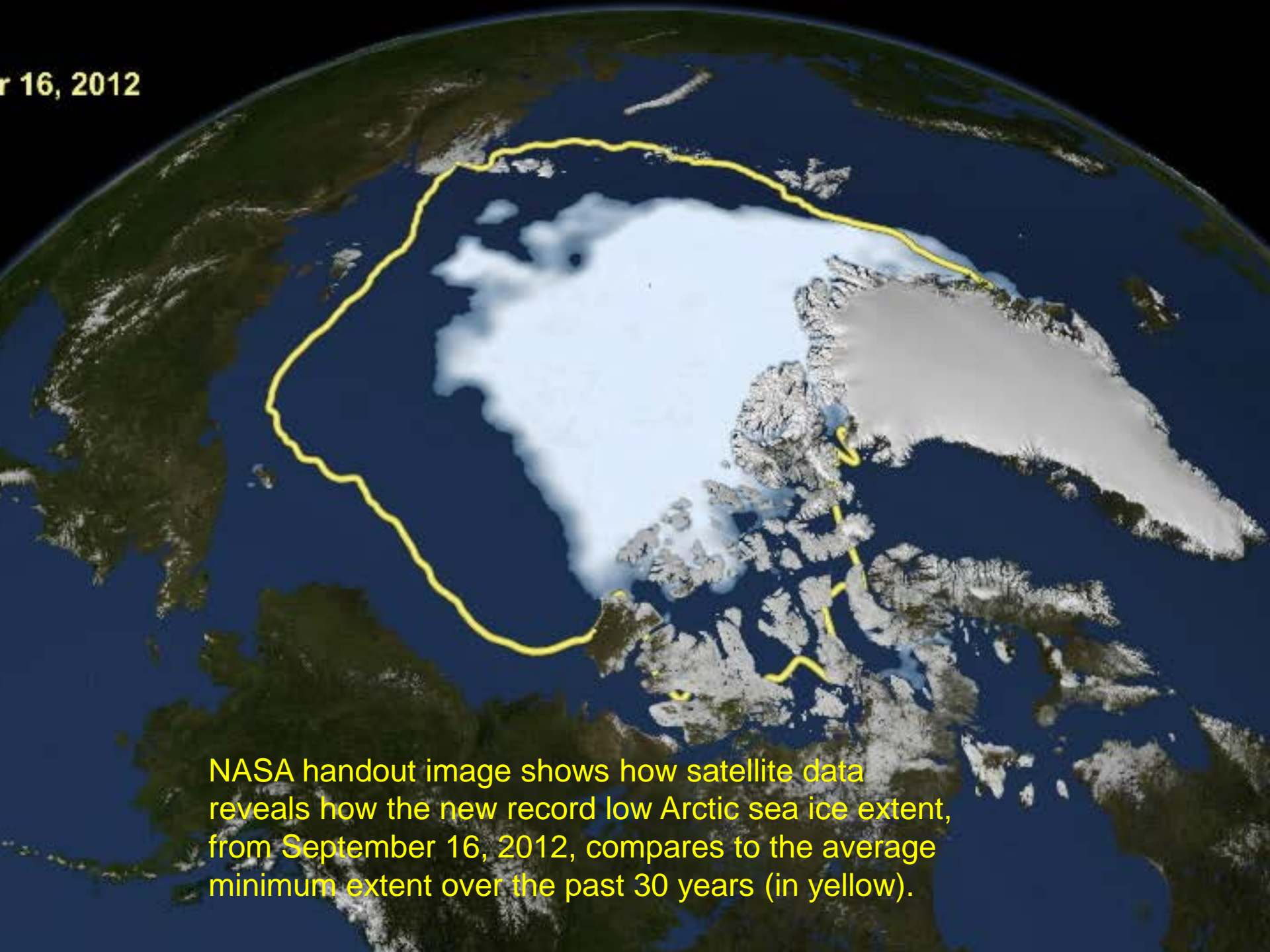
Resolute Bay to Alert – 682 miles

# Facts about the Arctic Ocean

- Area – 14.06 million sq km – smallest of world's 5 oceans
- Coastline – 45,390 km (U.S., Russia, Canada, Norway, Denmark/Greenland, Iceland, Sweden, Finland)
- Resources – Petroleum (10% world supply), natural gas (25% world supply), minerals / metallic nodules, fisheries
- Trans-Arctic shipping routes opening – Northern Sea Route, Northwest Passage
- Three main ports – Churchill (Canada), Prudhoe Bay (U.S. ), Murmansk (Russia)



September 16, 2012



NASA handout image shows how satellite data reveals how the new record low Arctic sea ice extent, from September 16, 2012, compares to the average minimum extent over the past 30 years (in yellow).

# Strategic Factors

- Uncertainties in a complex, changing domestic and international security environment – change and surprise
- Uncertainties about changing Arctic environment
- Need for replacement of CF-18 by 2020 (or so!)
- Rapidly changing technologies resulting in ‘5<sup>th</sup> generation’ aircraft
- Opportunities for assured interoperability in cooperative allied project
- *Exceptional industrial opportunities*

# Short History of the F 35 Program

- NATO and US requirement for new joint strike fighter identified in early 1980s
- 1995-96 Competition among European and US candidates led to Lockheed-Martin F 35 Lightning II selection
- Other candidate aircraft assessed Saab Gripen, Eurofighter /Typhoon, Dassault Rafale, Boeing F/A18E Superhornet
- 1997- Canada joins JSF Concept Demonstration Phase
- 2000 First Flight of F 35
- 2006-Production, Sustainment and Follow-on Production MOU signed



# Short History of the F 35 Program

- 2010 – Canadian Selection of F 35 with potential order of 65 aircraft for 2016-2022 delivery
- 2011- 12 First production deliveries to USN, USAF, NL and UK
- 2012-14 – Canadian Government ‘Reset’ – A multi-departmental / Task Force review of costs and alternatives
- 2014 – Validation of RCAF Statement of requirements by Independent Review Committee

MOU partners: US, UK, Netherlands, Denmark, Norway, Italy, Turkey, Australia

Other Purchasers : Israel, Japan, South Korea





Dassault Rafale



Eurofighter Typhoon



SAAB Gripen



Boeing F/A 18E Super Hornet

# High Level Mandatory Capabilities

<b>Range</b>	<b>Weapons</b>
<b>Endurance</b>	<b>Survivability</b>
<b>Speed</b>	<b>Interoperability</b>
<b>Air to Air Refuelling</b>	<b>Growth Potential</b>
<b>Deployability</b>	<b>Fleet Size</b>
<b>Intelligence Surveillance Reconnaissance</b>	<b>Certification</b>
<b>Sensors &amp; Data Fusion</b>	<b>Delivery</b>

# Key Mandatory Capabilities

<b>Range</b>	<b>Weapons</b>
<b>Endurance</b>	<b>Survivability</b>
<b>Speed</b>	<b>Interoperability</b>
<b>Air to Air Refuelling</b>	<b>Growth Potential</b>
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# Fifth Generation Aircraft

- Stealth (Interoperability, Survivability)
- Avionics Technology (Sensors and Data Fusion, Situation Awareness, Interoperability, Survivability, ISR)
- Tactics (Survivability, Interoperability)

# F-35 Lightning II Procurement

- Canada plans to procure 65 aircraft for \$9B (incl training, spares, basic weapons and contingency) + \$7-9B for 20 years support
- Canada has MOU with 8 other nations sharing development and manufacture permitting Cdn industry to participate over lifetime of 3100+ aircraft (1 Mar 15-75+ companies, US\$637M contracts, US\$288.7M development contribution, Total Potential US\$10.17B)
- Program progress – Flight test program progressing, timely deliveries (110+), better budget management – in spite of media!



First delivery to Eglin AFB for Aircrew and Maintenance Training- July 2011





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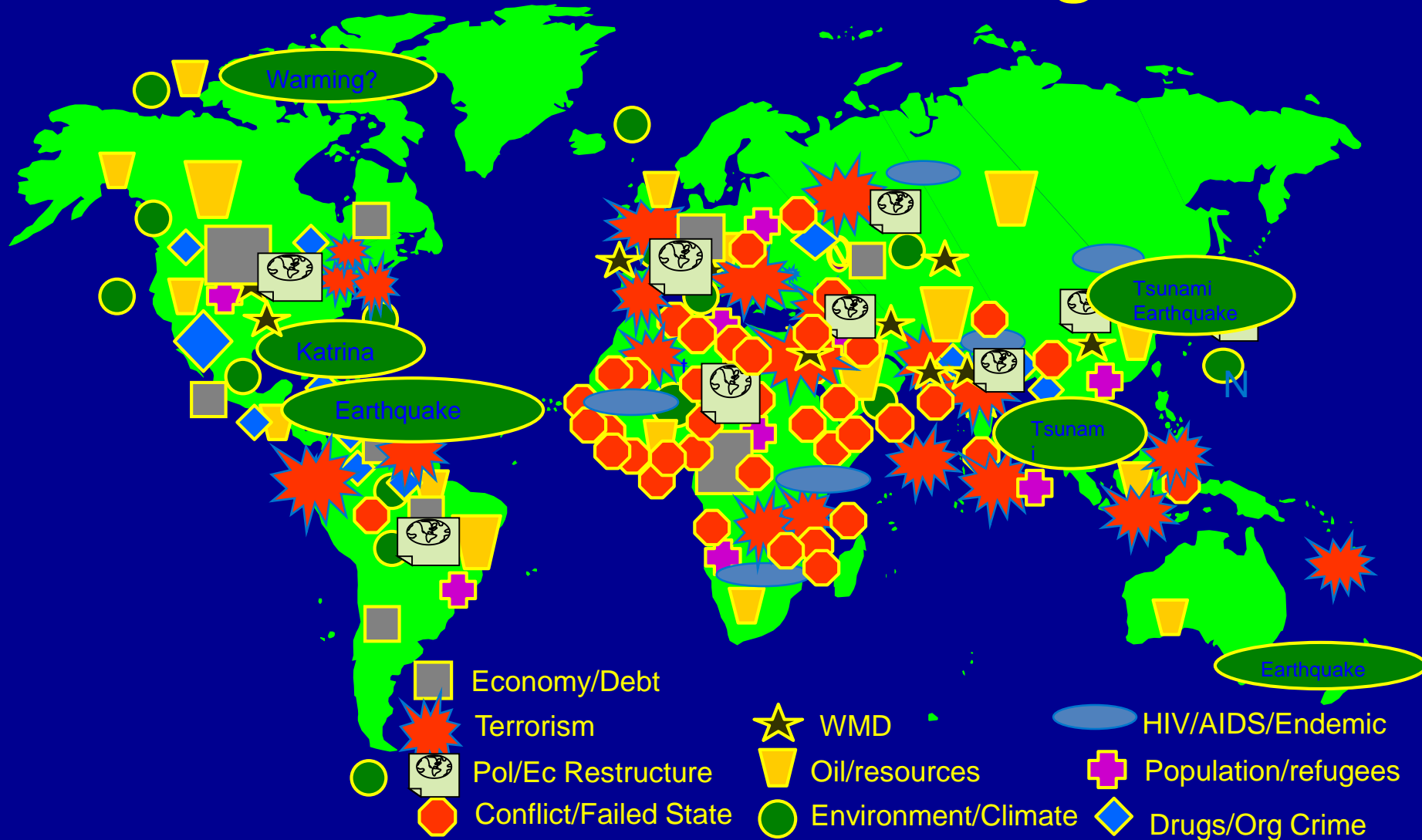
FOL Rankin Inlet

But in its bearing upon our national future in Canada, perhaps when all is said and done, the main reason for casting aside the worn out fiction of the protection of Monroe lies in another direction. The acceptance of such a protection, even if offered, would be unworthy of a people as lofty in their own estimation as the people of this Dominion. There is no need to elaborate the point. The nations of history have grown to greatness by sacrifice and self-reliance. There is no other path. ***We cannot accept unpaid the sheltering protection of another state. The future lies elsewhere. Upon the North American continent, there are not one but two great powers. Side by side with the democratic republic of the United States stands the democratic empire of the British people. Not all the fiats of an American Secretary of State can annihilate its sovereignty.***

STEPHEN LEACOCK

# Global Security Challenges

## What in the World is Going On?



## Sources

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Questions?









