I have prepared 40 slides to deliver in 40 minutes, leaving 20 minutes for questions now, and then we can discuss details in the working groups and if desired later via email or skype. You will not have time to read every word – I am delivering impressions from 25 years of work as the primary pioneer in this field, you can study the briefing in detail later, my planned words are in Notes format at the tiny url shown here – 2016-OSINT.
### Plan for the Brief

- **WHY**
  - Secrets cover 4% “at best” of what we need
  - Most threats are not military in nature
  - All policies demand open discussion for effect
- **HOW**
  - OSINT is HUMINT not TECHINT
  - Craft of Intelligence – process – is IMPORTANT
  - 80% of OSINT demands out-sourcing to individual humans and money with which to pay them

This is the plan for the brief. I will be showing some complex graphics you can return to later on your own. For today the key points are these.

PAUSE
Alvin Toffler helped me create this slide. We were returning from a lunch with US defense intelligence leaders when he turned to me and said “they don’t want to leave their little green box.” I instantly visualized this.

Two points: OSINT is about harvesting ALL of this information outside the green box. And second, at the policy level, it is vital that we understand competing interests.
My first book was entitled *ON INTELLIGENCE: Spies and Secrecy in an Open World*. My core concern today is that the US has corrupted NATO intelligence by over-emphasizing secret technical collection that is not processed, and neglecting everything else. There are major centralized and distributed repositories of OSINT that we should not ignore.
LtCol Gary Beaver, USA gave me this concept, this is how he used OSINT in Bosnia, as a buffer zone to enable information sharing operations with external elements.

PAUSE
Intelligence Challenge | What Do We Need to Know?
--- | ---
1\(^{st}\) Generation (Attrition) | EASY: Where’s the Army?
2\(^{nd}\) Generation (Maneuver) | EASY: Where are the trenches?
3\(^{rd}\) Generation (Soft Power) | MODERATE: How many with what?
4\(^{th}\) Generation (Non-State) | HARD: Watch every non-state actor
5\(^{th}\) Generation (Cyber) | HARD: Watch everything on the fly
6\(^{th}\) Generation (Bio/IO) | HARD: Make sense of billions of bits
7\(^{th}\) Generation (Total War) | VERY HARD: 24/7 33+ languages and get your own house in order. As quickly as possible, 183 languages going back 200 years.

As war has grown more complex, intelligence has failed to adapt.

I’ll give you a moment to look at this graphic.

The harsh reality is that OSINT is the only source able to answer 80% or more of our commanders needs as well as acquisition, policy, and strategy needs.
This is my latest depiction of where we are in relation to where we need to be.

We are not serious about understanding and defeating all ten high level threats to humanity, and we are not serious about creating deep OSINT, multinational multilingual information sharing and sense-making, or my ultimate desire, the world brain and global game – that connects all minds to all information all the time.
In 1997 I was honored by General Peter Schoomaker, then Commander in Chief of the US Special Operations Command, and later Army Chief of Staff. This is the slide that led him to order the creation of the J-23 unit. At its height with 22 employees and $5 million a year in discretionary funding, it was answering 40% of all Special Operations intelligence requirements for the entire world, against 60% at a cost of billions from the secret world. **PAUSE**
In 1988 the Marine Corps pulled me out of the CIA and made me the senior civilian responsible for creating the Marine Corps Intelligence Center – our primary duty was acquisition intelligence. This is the model I created for studying the real world. The real world is hot and humid with bridge loading limits of 30 tons or less, limited line of sight distances, and poor cross-country mobility. I provide a link to the study on the last graphic.
In 1989, based on my experience with the new model, I ghost wrote for the Commandant an article sounding the alarm on emerging threats and calling for third world appraisals needed to justify peaceful preventive measures such as would have prevented ISIS and the illegal immigrants. We were ignored. The American “way of war” is expensive, technical, and counter-productive. It has corrupted NATO.

<table>
<thead>
<tr>
<th>Conventional Threat</th>
<th>Emerging Threat</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Governmental</td>
<td>• Non-Governmental</td>
</tr>
<tr>
<td>• Conventional/Nuclear</td>
<td>• Non-Conventional</td>
</tr>
<tr>
<td>• Static Orders of Battle (OOB)</td>
<td>• Dynamic or Random OOB</td>
</tr>
<tr>
<td>• Linear in Development</td>
<td>• Non-linear Development</td>
</tr>
<tr>
<td>• Rule of Engagement (ROE)</td>
<td>• No Constraints (ROE)</td>
</tr>
<tr>
<td>• Known Doctrine</td>
<td>• Unknown Doctrine</td>
</tr>
<tr>
<td>• Strategic Warning</td>
<td>• No Established I&amp;W* Net</td>
</tr>
<tr>
<td>• Known Intelligence Assets</td>
<td>• Unlimited 5th Column</td>
</tr>
</tbody>
</table>

* Indications & Warning

OOB: Order of Battle --- ROE: Rules of Engagement

1989 General Al Gray on Global Intelligence Challenges (American Intelligence Journal)
2014 On Defense Intelligence: Seven Strikes (CounterPunch)
This is the heart of my 1976 graduate thesis that created a model for studying the preconditions of revolution. The conditions shown here in red exist in the USA today. I will not discuss this in detail, you can read the paper and study the graphic in at the tiny URL shown here.

The core point is that secret intelligence is useless and OSINT is priceless, in this context.
The Great Books of the Western World as published by the University of Chicago and Encyclopedia Britannica have a stunning two-volume Syntopicon with reference sections for each of 144 key cultural concepts. As a young lieutenant bored with garrison duty I created this chart one day, to show all 144 concepts in relation to one another. We cannot understand other cultures without understanding how they see each of these concepts.
Another area where OSINT is fundamental is in relation to the new reality that war is less about state on state military power and more and more about distributed individuals each capable of shutting down entire power and communications and water networks.

Ultimately OSINT is about turning every citizen into an intelligence minuteman, and being on guard, openly, all the time.
This depiction of the four major belligerent groups further emphasizes the vital nature of OSINT for state security.

We have failed to be serious about creating orders of battle for non-state actors. We have failed to be serious about counterintelligence against non-state threats to the state and the society.
Homeland defense is vastly more important today. I was the author of the letter to the White House in 1994 sounding the alarm on cyber-vulnerability, with three co-signers including the top NSA security engineer and Winn Schwartau. We were ignored. For the past 25 years we should have been fortifying all cyber-systems – instead we allowed NSA and US IT CEOs to handicap and sabotage cyber-security for their convenience.
Here I offer my estimate of the utility of OSINT against each of the ten high level threats to humanity as identified by LtGen Brent Scowcroft, USAF (Ret) and other members of the UN High-Level Panel on Threats, Challenges, and Change, as it reported out in 2004 in a book entitled *A More Secure World: Our Shared Responsibility*. It is not possible to be a Smart Nation or a Safe Nation without a major investment in OSINT.

### Utility of Open Sources

<table>
<thead>
<tr>
<th>Threat</th>
<th>Utility (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic and social threats, including</td>
<td>95%</td>
</tr>
<tr>
<td>- Poverty</td>
<td>99%</td>
</tr>
<tr>
<td>- Infectious Disease</td>
<td>95%</td>
</tr>
<tr>
<td>- Environmental Degradation</td>
<td>90%</td>
</tr>
<tr>
<td>Interstate conflict</td>
<td>75%</td>
</tr>
<tr>
<td>Internal conflict, including</td>
<td>90%</td>
</tr>
<tr>
<td>- Civil War</td>
<td>85%</td>
</tr>
<tr>
<td>- Genocide</td>
<td>95%</td>
</tr>
<tr>
<td>- Other Large-Scale Atrocities</td>
<td>95%</td>
</tr>
<tr>
<td>Nuclear, radiological, chemical, and biological WMD</td>
<td>75%</td>
</tr>
<tr>
<td>Terrorism</td>
<td>80%</td>
</tr>
<tr>
<td>Transnational organized crime</td>
<td>80%</td>
</tr>
</tbody>
</table>

*2008 Open Source Intelligence [in Loch Johnson (ed) Strategic Intelligence Vol 2. Chapter 6]*
Most OSINT is not OSINT. To qualify as intelligence or decision support it must answer a question from a specific person.

I learned that to make peace with the CIA we had to distinguish between OSINT that any commercial provider can create, and Validated OSINT that only an all-source government analyst can bless, saying we concur, or at least, we do not have a basis for disagreeing.
I modified this graphic from Stephen E. Arnold. The fact is that the NATO-US approach to OSINT merely skims the surface, like the drunk looking for his keys under the light. Google indexes less than 4% of the web and nobody is indexing the analog information or the unpublished information.

Worse, Google manipulates search results depending on who pays to be seen.
Here is a deeper look at this challenge. Only 1% of WRITTEN scientific papers are PUBLISHED. It only gets worse when you consider foreign languages and whether researchers will perform due diligence.

On the left is the fragmentation of the scientific community, an archipelago of isolated fiefdoms where a PhD can be earned knowing everything about nothing and nothing about everything.
I was interviewed to be the senior defense leader for HUMINT, and this was my vision. I was not selected – they wanted someone who would focus only on stealing secrets. The fact is that HUMINT consists of at least fifteen slices, only four of which are secret. It is irresponsible to not manage all HUMINT together, and I would emphasize that OSINT is HUMINT, not TECHINT. My monograph is free online at http://tinyurl.com/Steele-HUMINT.
Here is another way of looking at the centrality of OSINT in relation to both secret intelligence and counterintelligence, and the ultimate combat mission of sabotage behind enemy lines. **PAUSE** Please note that OSINT (and all-source intelligence) should be organized to support strategy, policy, acquisition, and operations. I don’t know of anyone doing this correctly.
You will recall the isolated boxes from the beginning of my remarks. Here I show the eight tribes of information, emphasizing that government is the smallest and least informed tribe. We cannot do OSINT without harnessing what these other tribes can access – and most of them do not like us, do not trust us, and do not want to share.

BRIEFLY DESCRIBE EACH TRIBE
This graphic was created by Jan Herring, the first National Intelligence Officer for Science & Technology in the US, in the 1970’s. We still do not do this.

Note that OSINT can become secret.

Note the ratios of need versus cost.

We can discuss this further in our follow-on discussion.
Six people can harvest the external world of knowledge if they know what they are doing and have the money with which to leverage intermediaries as well as reward individual human elements as needed.

The collection manager needs to have the confidence of the secret world and to hear their requirements in classified terms.

DISCUSS EACH OF THE OTHERS
This is a quick look at where OSINT fits in relation to secret and existing staff feeds, we cannot under-estimate the impact on the decision-maker of random external influences, it is very important to have a solid grasp of what happens to your information after it is delivered, and to be constantly studying the decision-maker to see if they have been mis-guided by other sources of information including lies from allied services and leaders.
This is the original graphic from the 1980’s where I tried to explain that OSIF and OSINT are the foundation for the all-source temple.

It makes no sense at all to send a spy where a school-boy can go. We must harness and harvest all of our human resources, and make the most of the least expensive, most open sources and methods.
I wrote the *NATO Open Source Intelligence Handbook* in 2000. While good in its time the links are mostly broken and it should be re-done. In my final slide I provide links to the best resources from a few top OSINT practitioners.

What is critical about this graphic is not the detail but the organization. OSINT includes sources, softwares, and services. I give all of them a failing grade for one reason or another, we can discuss this later.

<table>
<thead>
<tr>
<th><strong>SOURCES</strong></th>
<th><strong>SOFTWARE</strong></th>
<th><strong>SERVICES</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Awareness (e.g. Individual Inc.)</td>
<td>Internet Tools (e.g. NetOwl, Copernicus)</td>
<td>Online Search &amp; Retrieval (e.g. NERAC, Burwell Enterprises)</td>
</tr>
<tr>
<td>Current Contents (e.g. ISI CC Online)</td>
<td>Data Entry Tools (e.g. Vista, BBN, SRA)</td>
<td>Media Monitoring (e.g. FBIS via NTIS, BBC)</td>
</tr>
<tr>
<td>Directories of Experts (e.g. Gale Research, TELTECH)</td>
<td>Data Retrieval Tools (e.g. RetrievalWare, Calspan)</td>
<td>Document Retrieval (e.g. ISI Genuine Document)</td>
</tr>
<tr>
<td>Conference Proceedings (e.g. British Library, CISTI)</td>
<td>Automated Abstracting (e.g. NetOwl, DR-LINK)</td>
<td>Human Abstracting (e.g. NSA Members)</td>
</tr>
<tr>
<td>Commercial Online Sources (e.g. LNI, DIALOG, STN, ORBIT)</td>
<td>Automated Translation (e.g. SYSTRAN, SRA NTIS-JV)</td>
<td>Telephone Surveys (e.g. Risa Sacks Associates)</td>
</tr>
<tr>
<td>Risk Assessment Reports (e.g. Forecast, Political Risk)</td>
<td>Data Mining &amp; Visualization (e.g. I2, MEMEX, Visible Decisions)</td>
<td>Private Investigations (e.g. Cognos, Pinkertons, Parvus)</td>
</tr>
<tr>
<td>Maps &amp; Charts (e.g. East View Publications)</td>
<td>Desktop Publishing &amp; Communications Tools</td>
<td>Market Research (e.g. SIS, Fuld, Kirk Tyson)</td>
</tr>
<tr>
<td>Commercial Imagery (e.g. SPOT, Radarsat, Autometric)</td>
<td>Electronic Security Tools (e.g. SSL, PGP, IBM Cryptolopes)</td>
<td>Strategic Forecasting (e.g. Oxford Analytica)</td>
</tr>
</tbody>
</table>
Arabic, Aimaq, Albanian (Greek), Amharic, Arabic (Andalusi), Arabic (Egyptian), Arabic (Gulf), Arabic (Hassaniya), Arabic (Hijazi), Arabic (Iraqi), Arabic (Levantine), Arabic (Maghreb), Arabic (Maltese), Arabic (Najdi), Arabic (Standard), Arabic (Sudanese), Arabic (Yemeni), Armenian, Assamese, Atuence, Azerbaijani, Bai, Basque, Bassa, Bengali, Berber, Bulgarian, Burmese, Catalan, Cebuano, Central Khmer, Chechen, Chinese (Mandarin), Croatian, Czech, Danish, Dari, Dutch, Dzongkha, Edo, Efik, English, Estonian, Éwé, Farsi, Finnish, French, Fulfulde, Gaelic, Georgian, German, Greek, Gujarati, Gurung, Hausa, Hebrew, Hindi, Hungarian, Ikanuri, Ilongo, Indonesian, Italian, Japanese, Japanese, Kabiye, Kabuverdiano, Kannada, Kanuri, Kashmiri, Kazakh, Kirghiz, Khmer, Korean, Kurdi, Kurmangi, Lingala, Latin, Latvian, Lithuanian, Luba-Kasai, Malagasy, Malay, Malayalam, Maldive, Mandinka, Maninka, Maori, Marathi, Munukutuba, Nepali, Norwegian, Nyanja, Oriya, Panjabi, Pashto, Polish, Portuguese, Pulaar, Romanian, Rundi, Russian, Rwanda, Sango, Sanscrit, Sardinian, Serbian, Sindhi, Sinhala, Slovak, Somali, Sotho, Spanish, Swahili, Swati, Swedish, Tagalog, Tajik, Tamil, Tatar, Telugu, Thai, Tibetan, Tigrigna, Tswana, Tumbuka, Turkish, Turkmen, Ukrainian, Urdu, Uzbek, Vietnamese, Xhosa, Yiddish, Yoruba, Zarma, Zulu (136)

The major powers either don’t get it or lie a lot. You cannot achieve ground truth without a deep use of the local language.

There are at least 31 core languages and over 136 others than need attention.

Machine translation is not good enough for most languages. You need a mix of indigenous speakers who also speak a Western language, and a handful of trusted officers who have spent a lifetime learning the target language.
This is the heart of an OSINT cell’s advanced operations if you have more than six people. Note that it includes ingestion and sense-making processes, and that there are at least three outputs: human; written, and classified requirements.

The Dutch service in theory is not allowed to use secret sources and methods unless the OSINT people certify they cannot find out using open sources and methods.
I was a founding member of the Advanced Information Processing and Analysis Steering Group in the 1980’s and into the 1990’s and I am sorry to say that despite our knowing then that we need all of this in an integrated tool-kit able to ingest and make sense of massive amounts of unstructured multi-lingual multi-media data, it still does not exist today.
These are the eight areas where I would like to help just one country – all eight tribes of information – get it right. All of these eight quadrants are no better than yellow and most are red in my view.
Generic OSINT Budget
My Personal View: 5% of the Total Intelligence Budget

- HUMAN Training & conferences everywhere
- HUMAN Internet monitoring services
- HUMAN Information broker services
- HUMAN Private investigative services
- HUMAN Academic research services
- HUMAN Commercial imagery procurement
- HUMAN Russian & other tactical military map procurement (both digital and hard copy)
- HUMAN Circuit Rider fund (travel & expenses)

I cannot stress this enough. OSINT is HUMINT, not TECHINT, and OSINT requires adequate funding – on the order of 5% of the total intelligence budget – if it is to be fully effective.

PAUSE
This was an overnight exercise for the Aspin-Brown Commission seeking to reform the intelligence community. The CIA had a map and an old economic study. This is what I produced with six phone calls. **DESCRIBE EACH** As a result, the Commission recommended that OSINT be a top priority for DCI attention and a top priority for funding. Later the 911 Commission recommended a separate Open Source Agency. Nothing happened.
Case Studies: Maps

- Burundi Emergency
- Denied Area Border Crossing
- Congo for United Nations new maps $3M
- Somalia combining Russia 1:100K & Google Earth

When I started the OSINT fight within the US Intelligence Community in 1988-1992, I noticed immediately that the civilians have no idea about the vital importance of maps – and especially military charts with contour lines. Over the years this has been one of the most important accomplishments in OSINT, greatly aided by the release of all the Soviet maps of Africa and South America – but not China, that warehouse mysteriously burned down – and by commercial imagery.
Case Studies: Other

- **Citation Analytics** – top experts on anything (published, names in news, then unpublished field experts & rising students identified by published experts)
- **Islamic finance** – 20 families from Indonesia to India to Arabia, evaluated for donations to Bin Laden and others – mix of online, social engineering, and local tax and other records
- **True Cost of Goods** – virtual water, fuel, toxins, child labor, regulatory violations and tax avoidance
- **Web sites** – 396 terrorist, insurgent, & opposition websites in 29 languages – done in 60 days using European students
- **UK Convictions** – global discovery of land, buildings, yachts, other assets – local real estate and tax records examined manually

With citation analytics for about $1,500 I can identify to most cited published experts, and from there get to unpublished field experts. I can also hire their best graduate students for 20 cents on the dollar.

Finance and true costs require field work by humans, including examinations of hard copy tax and real estate and boat records.

The best web monitoring is done in the original languages – students fluent in the target languages are inexpensive.
This is what it looks like when it is working. No one has this. My own government refuses to be serious about OSINT or more recently, Open Source Everything Engineering, see http://tinyurl.com/Steele-Future for my full vision.

In my view the Nordics should offer to host a joint EU-NATO Multinational Decision Support Centre and network whose primary mission will be to produce the truth and confront lies being told by others.
I cannot over-state the importance of counter-intelligence. In the past 25 years what I have come to appreciate apart from the urgency of getting OSINT right, is counterintelligence.

In the USA we have financial ideological, and religious traitors in key leadership positions, and the FBI is not allowed to do its job.

Rooting out traitors is fundamental.
My closing thoughts.

Ethics is an operating system. Will and Ariel Durant in *Lessons of History* speak to the role of morality in the game of nations. The US and Europe have failed to live up to their ideals – they actively support all but two of the dictators on the planet, and turn a blind eye to financial, religious, and ideological crimes against humanity.

We in the intelligence profession have the power to educate, inform, and elevate.
Further Reading

- 2016 Arno Reuser (NL) Open Source Intelligence Resource Discovery Toolkit
- 2016 The Future: Recent “Core” Work by Robert Steele
- 2015 Ben Benavides OSINT Tool Kit On The Go Bag (Bag O’Tradecraft)
- 2014 Handbook Online for Internet Tools and Resources for Creating Open Source Intelligence (OSINT) by Dr. Ran Hock, Chief Training Officer, Online Strategies, Inc.
- 2013 OSINT Literature Review, Name Association, Lessons Learned
- 2010 Intelligence for Earth: Clarity, Diversity, Integrity, & Sustainability
- 2008 Open Source Intelligence (Operational)
- 2007 Open Source Intelligence (Strategic) 2.0
- 2004 Special Operations Forces OSINT Handbook (Strawman)
- 2000-2002 NATO OSINT Handbooks
- 2000 ONE WORLD, READY OR NOT: From National Capabilities to Global Coverage Through a Virtual Intelligence Community Coordinated by NATO/PfP
- 1998 OSINT Executive Overview (Australia, October 1998)
- 1990 Expeditionary Environment Analytic Model

- Various other handbooks including United Nations handbooks are online at Phi Beta Iota.
  Handbooks (70) Analysis (14) C4/JOE/Software (4) HUMINT (12) Law Enforcement (14) Military (19) OSINT Generic (19) Stabilization (22) Threats/Topical (14) UN/NGO (22)

- See Also: NATO OSINT to OSE/M4IS2 Round-Up 2.0

Here are a few links, the larger website holds over 20,000 posts by over 800 contributors I have nurtured over the past 25 years and I am always available to support your learning as well as your work.
If you did not note the tiny url before, here it is again.

It is an honor to be in your company.

Thank you.