



**August 21, 2008**



# **Aerospace Industry International Offset**

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## **a Unique Opportunity for Hawaii**

### **Key messages:**

- 1. Get smart on offset and offset projects that can involve Hawaii.**
- 2. Support international offset conference in Hawaii, Winter 2009.**

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# Examples of International Offset Projects (1 of 2)

## Svalbard Norway Satellite Ground Station

Kongsberg (of Norway) and Lockheed Martin formed a joint venture (KLM Space Data Systems) to develop the Svalbard ground station on Spitsbergen Island as an F-16 contract offset project.



The enterprise value (the value for offset credit) \$50M. The enterprise has grown to \$.5B+, a win-win for all parties.

# Examples of International Offset Projects (2 of 2)

## Malaysian astronaut to ISS, late 2007

As an offset project for the Sukhoi jet, the Russians flew a Malaysian astronaut to the International Space Station.

Also included was support of Malay science hardware, etc. Estimated offset value was \$90M.



(Article in Space News)



# International Offset

## Definition/Terminology

- **Definition of Offset, by an international seller and buyer, the British government: “. . .*offset* is the term used to describe the situation where, in the event of an overseas procurement . . . , the seller is required to compensate the buyer for a perceived loss to the economy of the purchasing country.”**
- **Offset is required for most large sales to foreign governments.**
- **Other terms used for offset:**
  - **Industrial Cooperation is used by Norway, Chile, etc.**
  - **Industrial Participation used by UK and other countries**
  - **Other terms: Counter Purchase, Countertrade, Industrial Coproduction**
  - **Direct (direct to contract) offset, indirect offset, etc.**
- **See also -[www.globaloffset.org](http://www.globaloffset.org), or Google on international trade offset**

# The Growing Importance of International Offset

- 30 Years ago about 10 countries had offset policies. Today 150 + countries have offset policies.
- According to offset associations (GOCA, DMA, DIOA, etc.), offset now accounts for an estimated 10% to 15% of world trade; i.e.: about 1 Trillion Dollars/year (based on world trade at ~\$8T/year).
- Offset costs (to sellers) are increasing: from ~2% or ~3% of contract value to ~4% or ~5% or more in some areas; i.e.: at 4%, \$40M is budgeted for offset for each \$1B of contract value.
- Offset is becoming mandatory in international competitions; no offset = no sale.
- International trade is growing; “... go global or go broke ...”
- Most people in U.S. aerospace are not familiar with offset because U.S. does not have a formal offset policy. Most countries have formal offset policies, including almost all U.S. trading partners.

# The “Reality of Money” in the Aerospace Industry



## LOCKHEED MARTIN, BOEING Dominate the Space Industry

➤ The “reality of money,” the “core,” the “focus of CEOs” for the aerospace industry is not space, and especially not NASA, JAXA nor ESA. It is the 100s of \$Bs in other sales.

Rank	Company	2005 Space Sales	2004 Space Sales	Total 2005 Sales
1	The Boeing Co.	\$9,100	\$10,310	\$54,845
2	Lockheed Martin Corp.*	\$9,010	\$8,592	\$37,200
3	Northrop Grumman Corp.	\$4,858	\$4,573	\$30,721
4	Raytheon Corp.*	\$3,934	\$3,396	\$21,900

> Offset deals directly with this “reality of money”

> Space related offset projects provide an opportunity to access/ influence/ take advantage of this “reality”

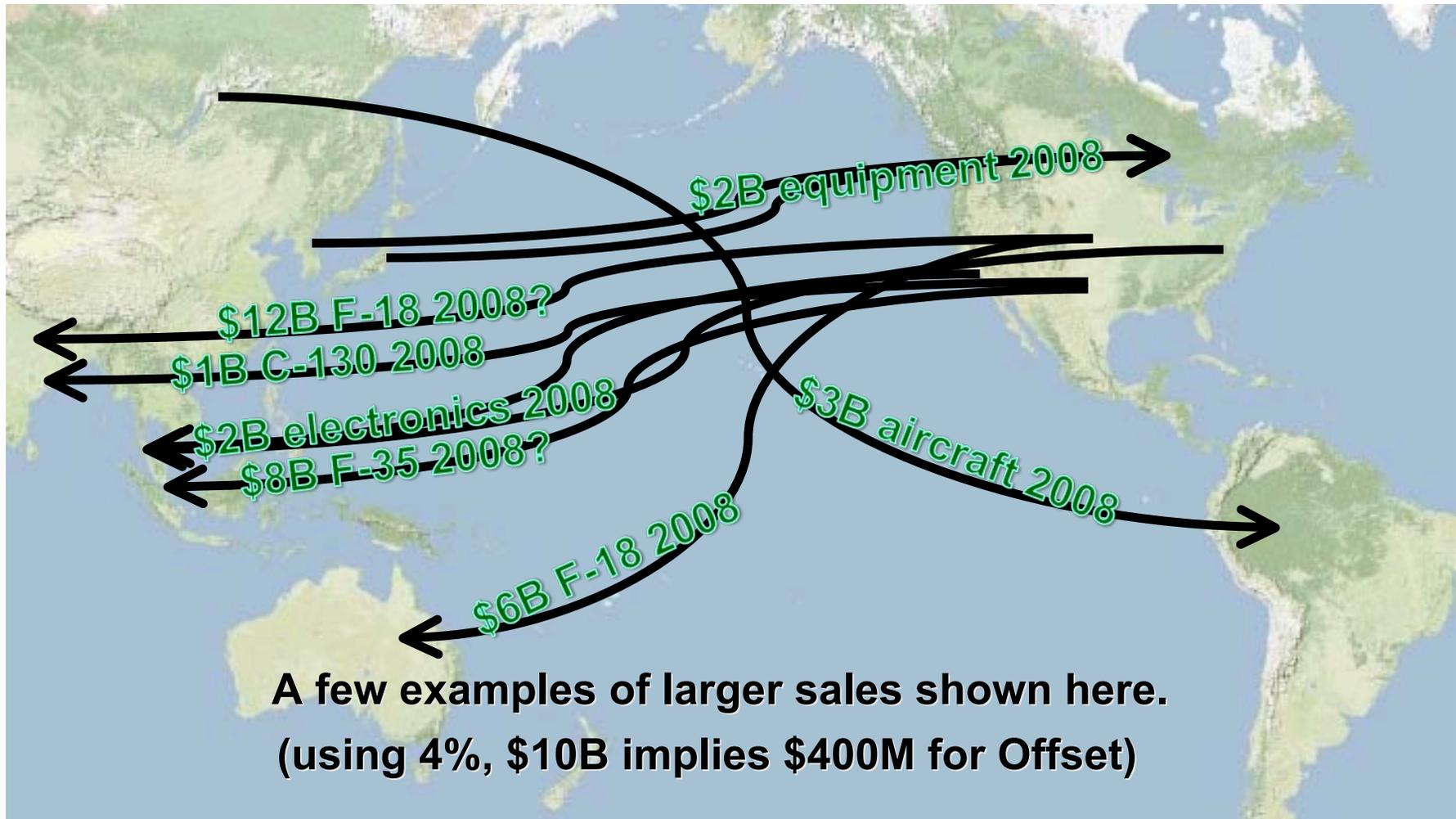
**Annual Sales:**  
Only top 4 of Top 50 shown here.  
EADS was 5<sup>th</sup>.

**\$26.9B**  
Space Sales

**\$144.7B**  
Total Aerospace Sales

Space (including military and comsats) is less than 19% of the aerospace business. NASA, JAXA and ESA are only a few percent.

# \$Tens of \$Billions of Offset Sales go by Hawaii Every Year



# **Offset is Increasing in World Trade**

- **International trade using offset is increasing; Examples:**
  - **Dell computer sales to Australia**
  - **Caterpillar road building equipment sales to Canada**
  - **Boeing 777 airliner sales to India**
  - **Sales by Japanese companies such as Mitsubishi, Toyota, etc., and many other international companies.**
- **Use of offset for environmental or education projects, or projects involving peaceful cooperation (perhaps between adversarial nations such as Israel and Palestine, India and Pakistan, etc.), and other good causes is increasing.**
- **\$10s of Billions of Dollars with offset, of course, implies many international conferences, including the proposed Hawaii offset conference in Winter 2009.**

# Offset Conferences, Examples

## Recent Conferences

Spring 2008, May 11-14  
*Global Industrial Cooperation Conf.*  
*Seville, Spain*

Winter 2008, February 12-13  
*Joint CII-DMA-GOCA Conference*  
*New Delhi, India*

Winter 2007, December 6-7, Asia  
*Regional Offset Conference DMA-GOCA*  
*Langkawi, Malaysia*

SPRING 2007, May 20-23  
*GOCA Conference*  
*Monterey, California.*

FALL 2006, October 9-11  
*DIOA-GOCA Conference*  
*Lake George, New York.*

## Future Conferences

Summer 2008, September 21-22, 2008  
*European Offset Conference*  
*Bucharest, Romania*

Fall 2008, October 13-16, 2008  
*DIOA-GOCA Fall 2008 Conference*  
*Coeur d'Alene, Idaho*

Spring 2009, May 13-16, 2008  
*GOCA Spring Offset Conference*  
*Las Vegas, Nevada*

Winter 2009, planned  
*International Offset Conference*  
*in Hawaii,*  
*Honolulu or Kona,*  
*Asia-Pacific emphasis,*  
*more Hawaii support needed*



## Offset Conference at Lake George, New York



**Dr. Pete Worden**  
**Dir. NASA Ames**  
**Keynote speaker**



**Steve Wylong**  
**Lockheed Martin**

**Ira Berkowitz**  
**Lockheed Martin**

**(photos by conference photographer)**

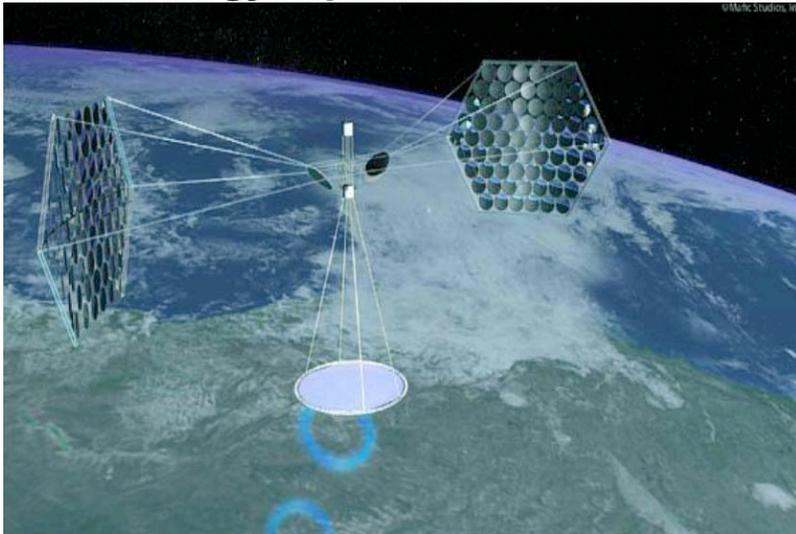


**Steve Saiget**  
**General Dynamics**

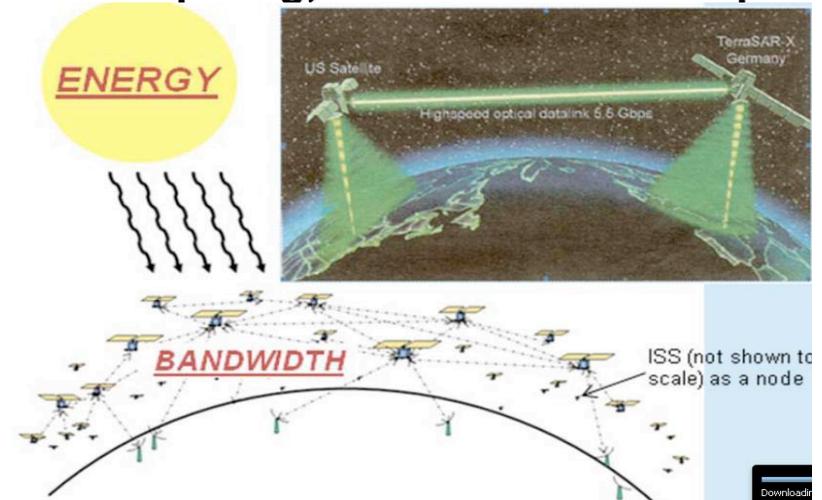
# Offset Projects that can Include Hawaii

## Commercial Space Examples

### Green Energy; Space Based Solar Power



### Green Computing; On-orbit Cloud Computing



### Space Tourism/Point to Point

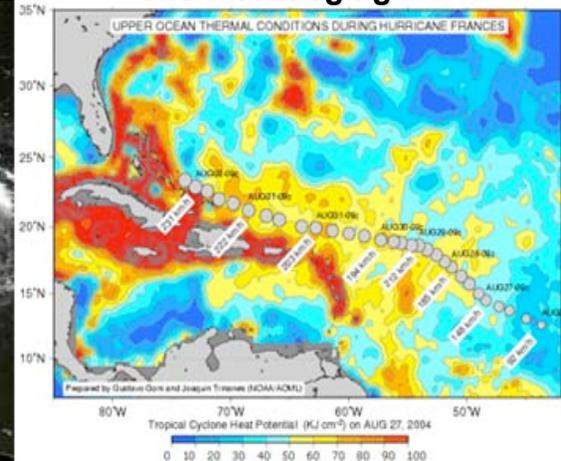


### Green Ocean Monitoring

#### Radar Imaging



#### Thermal Imaging



For details, see Commercial Space Report at: [http://www.commercial-space.net/Preliminary\\_ComSpace\\_Report\\_08.pdf](http://www.commercial-space.net/Preliminary_ComSpace_Report_08.pdf)

# Hawaii as an Offset Conference Venue

- *An attractive destination for offset conference delegates from outside of the Asia-Pacific region, as exemplified by an annual telecommunications conference attended by thousands of people from all over the globe, and other global business conferences held in Hawaii.*
- *Hawaii's role as gateway for trade, not only between the mainland U.S. and Asia-Pacific, but also between Asia Pacific and countries like Canada, Chile and Columbia*
- *Extensive involvement in defense and non-defense (telecommunication, commercial aircraft, heavy equipment, information technology, etc.) areas related to offset*
- *Hawaii's international emphasis, as evidenced not only by culture and geography, but also by specific initiatives such as the University of Hawaii East-West Center*
- *Proven experience and resources that will ensure a successful conference related to international business.*

# Mahalo

## Take aways:

1. Get smart on offset and offset projects that can involve Hawaii.
2. Support international offset conference in Hawaii, Winter 2009

Join us on the Big Island this weekend and we can talk more about International Offset. You can also drive up to Mauna Kea, or drive our new John Deere tractor at the Kau Aloha Ranch.



# **Back-Up Charts**

# International Offset

- A definition: “. . .*offset* is where an international seller is required to compensate for the perceived loss to the economy of the purchasing country. . . .”
- According to offset associations (GOCA, DIOA, DMA, etc.) : “. . . Offset accounts for about 12% or \$1 Trillion of world trade (based on world trade at \$8T/year). . . .”
- Offset is required by most governments, including all G-8 nations except Japan and U.S.
  - Japan and U.S are unique, but Japan and U. S. still need offset for \$Billions in international sales
  - Japan and U.S. (e.g.: JUSTSAP) can use space offset projects for sales and to engage with other nations
  - JUSTSAP should support space offset in Asia-Pacific; e.g.: Australia, India, Chile, Canada, Malaysia, etc.
  - Offset projects: Environmental, Education, Commercial Space and Scientific Space (see next charts), etc.

# Dec. 2007 International Offset Conference in Malaysia

Note: 2009 Hawaii offset conference also had an Asia-Pacific emphasis.

**South East Asian Procurement Conference**  
6-7 December 2007  
Langkawi, Malaysia

Conference speakers currently include:

AgustaWestland Armcor * Australian Department of Defence BAE Systems Barclays Capital * Boeing Company The British Ministry of Defence * Cranfield University * CTRM * European Defence Agency Global Offset & Countertrade Association Indonesian Ministry of Trade Korean Defense Acquisition & Program Administration Malaysian Ministry of Defence * Malaysian National Defence University * Malaysian Industry - Government Group for High Technology (MIGHT) * Nanyang Technological University *	Philippine International Trading Corporation * Raytheon * Rohde & Schwarz * Rolls-Royce Plc S.H. White and Associates Inc * South African Department of Trade and Industry * Stencor * Thailand Ministry of Trade UAE Offsets Group * US Department of Defense Vietnamese Ministry of Trade VT Group * indicates confirmed speaker  In addition to the above, Dato' Sri Najib Tun Razak, the Malaysian Deputy Prime Minister & Minister of Defence, and the Secretary General of the Malaysian Armed Forces are also due to speak.
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**Asia-Pacific Emphasis**

- Australia
- BAE Systems
- Barclays Capital
- Boeing
- British MOD
- Cranfield Univ.
- Eur. Def. Agency
- Indonesia
- Korea
- Malaysia
- Nanyang Tech. Univ. (Malaysia)

**Asia-Pacific Emphasis**

- Philippines
- Raytheon
- Rolls Royce
- South Africa
- Thailand
- UAE Offsets
- U.S. DOD
- Vietnam

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## Asia-Pacific Emphasis

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## **Space Related International Offset; additional features**

- International student space projects would make good offset projects if structured properly.**
- International Space Station (ISS) projects are often ideal for offset (e.g.: Korean ISS project mentioned below, Malaysian project on previous chart, etc., etc.)**
- NASA Ames is ideally suited for space related offset support:
  - New business development/Silicon Valley aura**
  - Work with NASA HQ on Boeing-Korean ISS offset initiative**
  - International ties associated with Silicon Valley area**
  - Near “Sand Hill Road” venture capital community; approximately two thirds of the world’s risk capital is focused on Sand Hill Road.**
  - A NASA Ames could serve as an entry point for other Centers****
- There are positive national considerations associated with offset related to NASA’s role in ensuring a strong U.S. aerospace industry.**
- All aspects of space related offset must, of course, strictly adhere to regulations and policy considerations relevant to international offset.**
- Offset for commercial space is not easy. However, if done right, offset can help provide significant funding and other advantages.**

# **Some Opinions About Offset**

- **The U.S. does not have a formal offset requirement for imports; but countries importing to the U.S. claim that what the U. S. has (the Jones Act, “buy America,” the Berry Amendment, etc.) is much worse.**
- **Many object to the concept of offset. However, until the world is a “free trade utopia,” it is better to have offset than any of the likely alternatives.**
- **Because large aerospace companies are bureaucratic and often seem like branches of the government, offset (with its goal of creating business enterprises in customer countries) has been called the last bastion of free enterprise in the aerospace industry.**
- **Since offset is a “fact of life,” let’s use offset proactively for good causes such as environmental or education projects, or for projects involving business enterprise cooperation between adversarial nations such as Israel and Palestine, India and Pakistan, etc. Note: peaceful space related offset could be another of these good causes.**

## More Offset Information on the Web

- [www.globaloffset.org](http://www.globaloffset.org), click on “faqs” (frequently asked questions) for more details on offset. This is the website for the Global Offset and Countertrade Association (GOCA).
- <http://www.bis.doc.gov/DefenseIndustrialBasePrograms/OSIES/offsets/default.htm> The Bureau of Industry and Security (BIS) of the Department of Commerce has issued the 10<sup>th</sup> annual report on offset.
- [www.epicos.com](http://www.epicos.com) ; Epicos is one of several offset specialist contractors providing service to the offset industry.
- Others (for many other references, Google on offset combined with words like aerospace, or defense, or contract, to avoid references to printing related offset)

# What we did since JUSTSAP 2006

- MOU with Hawaii, March 2007



- “ . . .more than \$10B of offset flying over Hawaii to Asia-Pacific every year. . .”(one topic with Gov. Lingle)
- since March 2007: meetings, telecons leading to plans for a Winter 2009 Hawaii Offset Conference.

# JUSTSAP

- Offset and space related offset projects can be a win-win opportunity; taking advantage of the \$10s of Billions of dollars in aerospace world trade
- JUSTSAP should take advantage of Offset
  - Japan and U.S. have offset policy features in common
  - Offset can provide a vehicle for JUSTSAP to engage with other nations, starting with Asia-Pacific nations
- Hawaii Offset conference in planning for Winter 2009; JUSTSAP should participate.