

**2009 Moving Iowa Forward
Conference 4/8/2009**

***Risk Management in an
ever changing environment***

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Polaris Industries***

Agenda

- **Introduce Polaris Industries**
- **Real Polaris examples of supply chain disruptions**
- **Lead-times in supply chain**
- **Lean inbound Logistics**
- **International Compliance and Logistics**

Who is Polaris Industries ?

Established 55 years ago in Roseau Minnesota

Annual 2008 sales of \$1.9 billion

Headquarters in Medina , Minnesota

Plants in Roseau MN, Spirit lake IA and Osceola WI

Polaris designs, engineers, manufactures and markets all-terrain vehicles (ATVs), including the Polaris RANGER™, snowmobiles and Victory Motorcycles for recreational and utility use.

450 + Suppliers

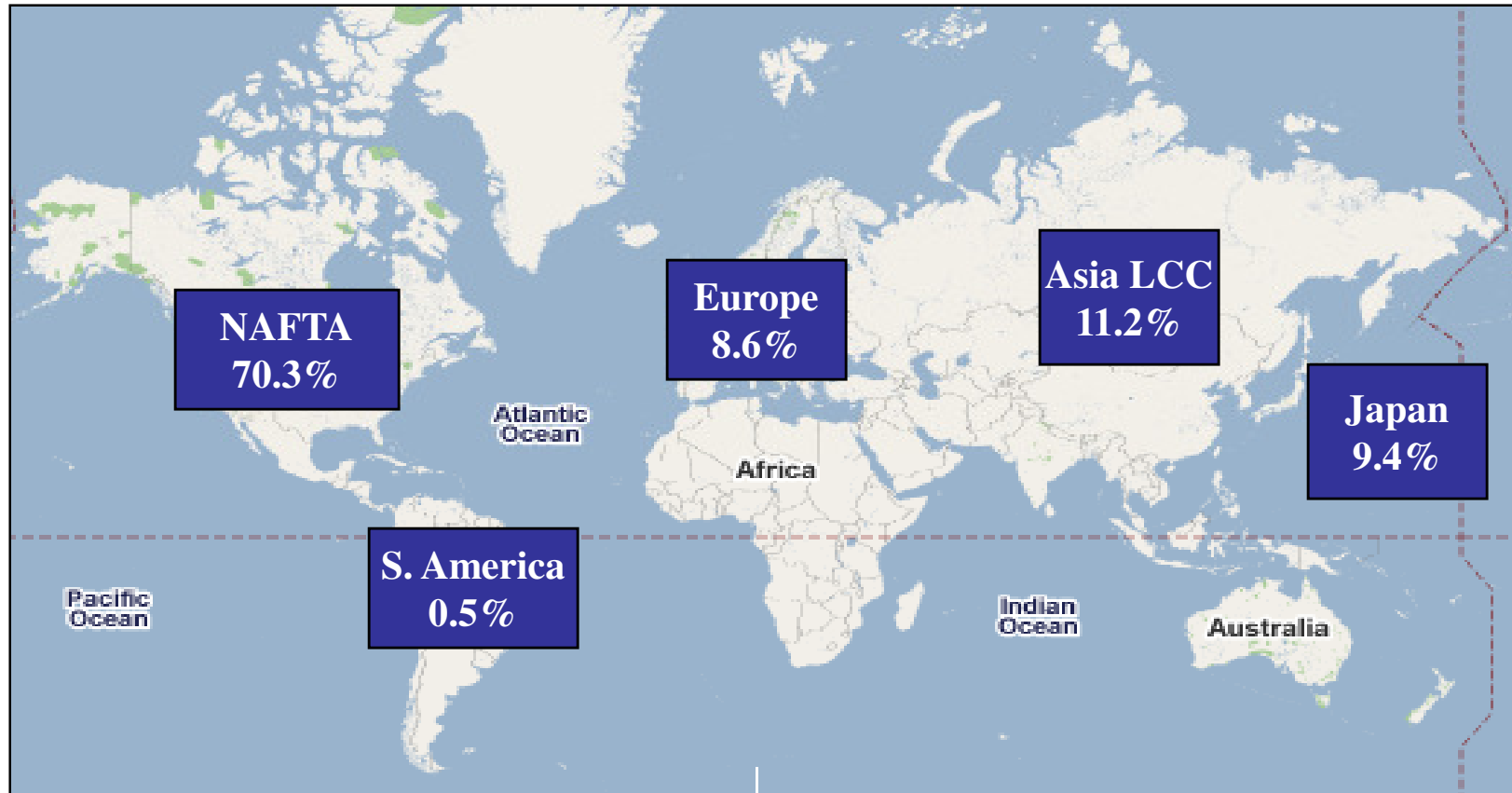
14,000 + Part Numbers

1,500 Dealers



2008-09 World-wide Procurement

24% LCC Content (Tiers 1- 3)



LCC Asia

11.2%

China, Taiwan, Korea, India, Vietnam,
& Malaysia

Comprehensive LCC

17.6%

Asia, Mexico, South America,
& Eastern EU



Direct OE & Aeon Purchases only.

Reasons for Supply Chain Disruptions

– Actual Polaris situations

- **Vancouver Port labor negotiations**
- **Icy Weather conditions in upper Midwest**
- **Supplier business failures**
- **Beijing Olympics**
- **Chinese Earth Quake**
- **Korean Port strike**
- **Indian Port strike**
- **Lead content in Youth product**

Lead time - A Competitive Advantage

Why is lead time a problem?

- **Forecasting**
- **2 main tools to reduce lead time**
 - Frequency
 - Eliminating waste

Lead Time - why is it a problem?

Build to Order

If the customer will wait for the product to be built, lead time is not a problem.

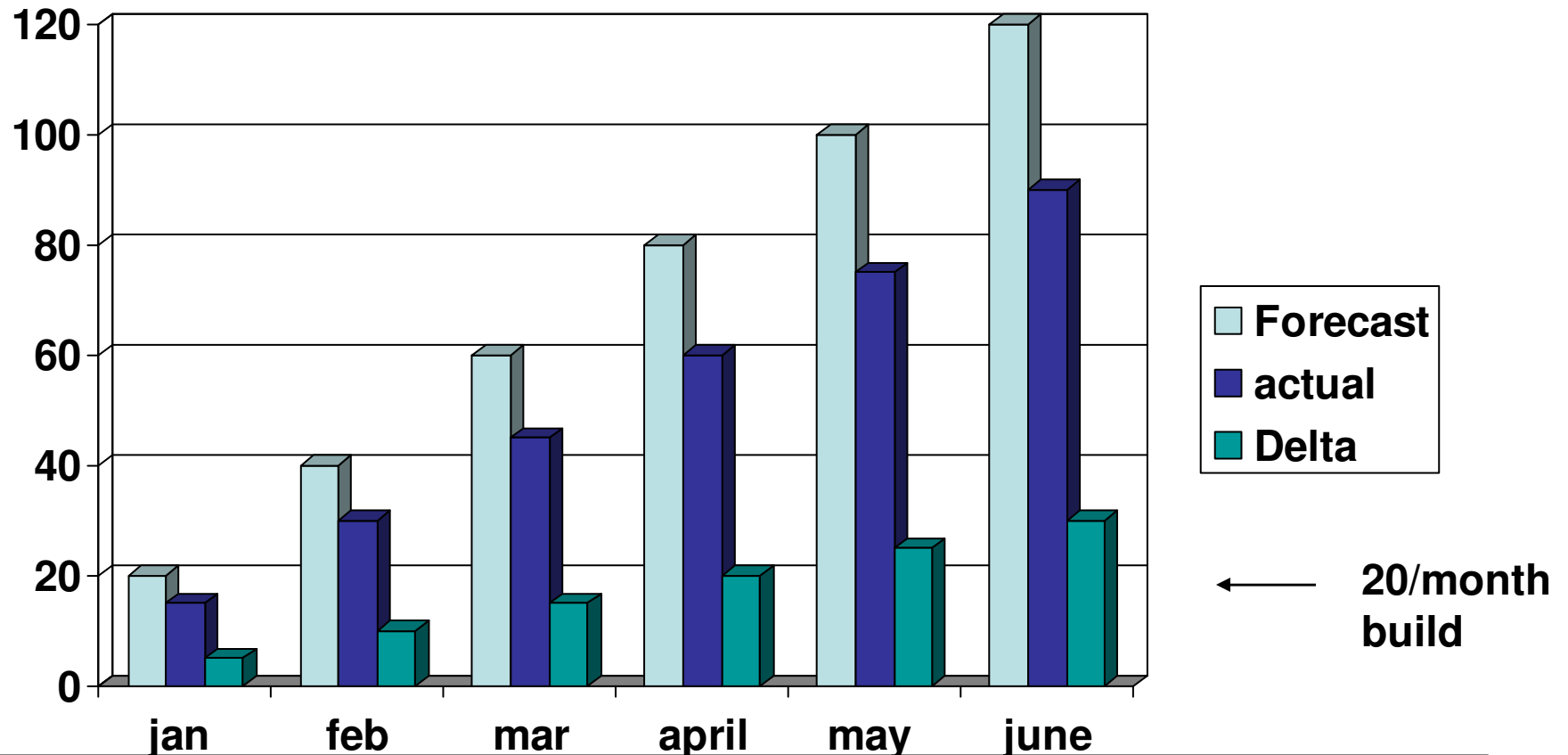
Build to forecast

If the customer will not wait for the product to be built, production is built to a forecast.

Polaris builds to a forecast

1. A forecast is always incorrect

2. The further out you forecast the more incorrect the forecast



Shorter lead times facilitate timely reaction to reality

Frequency and lead-time

	most frequent	least frequent
1 Order prep	1	3
2 Order entry	0.5	1.5
3 Order process	0.5	1.5
4 Pick,pack,produce	1	9
5 Transit	1	5
6 Customer receving	0.5	1.5

Total lead time in days	4.5	21.5
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Polaris 2008 SxS and ATV Change Batch Build to Mixed Model Production

Q1 ATV Production	1/7	1/14	1/21	1/28	2/4	2/11	2/18	2/25	3/3	3/10	3/17	3/24	TOTAL
400	0	180	716	279	194	265	271	0	0	459	210	352	2,926
500 EFI	0	1,020	0	450	640	0	490	505	185	0	321	800	4,411
500Carb	0	0	210	250	0	1,334	0	661	450	105	65	440	3,515
800EFI	0	366	0	620	0	0	225	0	600	501	186	0	2,498
500EFI Touring	0	0	275	0	275	0	105	127	35	100	154	85	1,156
800EFI Touring	0	0	260	0	150	0	397	0	0	0	0	0	807
500EFI X2	0	0	0	0	0	0	0	152	0	0	350	0	502
700EFI X2	0	0	50	0	0	0	0	98	0	135	80	45	408
800EFI X2	0	0	0	0	250	0	0	2	270	0	0	235	757

Before

Q4 ATV Production	9/29	10/6	10/13	10/20	10/27	11/3	11/10	11/17	11/24	12/1	12/8	12/15	12/22	TOTAL
400	0	0	210	0	420	0	140	110	245	175	345	0	0	1,645
500 EFI	600	0	0	0	0	135	100	205	60	150	0	0	0	1,250
500Carb	0	80	315	340	100	505	0	295	0	185	205	265	0	2,290
800EFI	75	75	75	75	70	85	85	90	90	130	130	140	0	1,120
500EFI Touring	140	140	140	140	140	140	140	140	130	210	210	310	0	1,980
800EFI Touring	105	105	105	105	105	95	95	95	95	180	180	80	0	1,345
500EFI X2	115	115	115	115	120	120	120	120	115	205	205	260	0	1,725
800EFI X2	50	50	50	50	50	65	65	60	60	95	95	50	0	740
XP550	555	555	640	620	555	475	635	850	275	589	795	580	0	7,124
XP850	660	1,000	575	935	660	380	560	685	255	299	425	280	0	6,714

After

Polaris Master Scheduling Metrics

- **Increasing frequency reduces lead times**
 - Mixed model production
 - Logistics “milk runs”
- **2009 Polaris Metrics UV and ATV -- build every model and every color every week**
- **Low volume models- 10 units per week vs batch build**

Waste and lead time reduction

Lead Time is Only Made of Two Things !



- 1-99% of suppliers can meet the lead-time goals based on mixed model change at Polaris
- 2- For 1% of suppliers value stream mapping to eliminate waste may be helpful and necessary

Lean Inbound – What & Why

- **Objectives: STABILITY/RELIABILITY, STANDARDIZATION and FLOW**
- **Result: Reduced Supply Chain Costs**

Vision

Implement Discipline and Lean Principles

through:

- **PFEP – Plan For Every Part**
- **Static Logistics Design with Daily Engineering**
- **Level Flow of Inbound Parts**
- **Pipeline Visibility / Verification**
- **Reducing Raw Material Inventories**
- **Management and Reduction of Transportation Costs**
- **Uncovering “Rocks” and Dealing with Issues at the Root Cause**

PFEP

- **Critical “DNA” for logistics**
 - Used to calculate weight and volume for pick ups
- **Helps with trailer utilization and efficient pick ups**
- **We need suppliers to help us keep the information current**
- **Polaris is moving toward perforated containers for safety reasons**

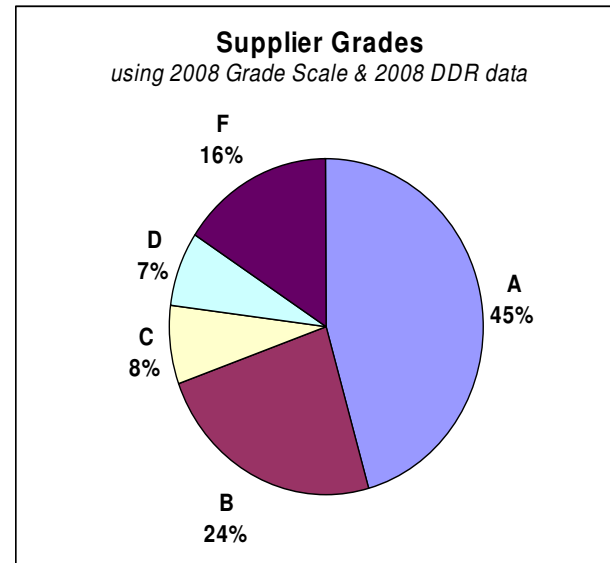
Vendor Report Card

- **Changes for 2009**

- Current DDRs for delivery timing and quantity replaced by automated DDRs based on ASN discrepancies.
 - ASN discrepancy = Qty shipped different than ASN Qty.
 - Exclude ASN discrepancies due to a non-supplier issue.
 - Manual DDRs when actual shipped qty differs from what is entered on ASN.
- Grade scale change

Vendor Report Card

	Current	2009
A	>99.5%	>99%
B	97%-99.5%	96%-98.9%
C	94%-96.9%	94%-95.9%
D	90%-93.9%	90%-93.9%
F	<90%	<90%



Impact of Change

- **More accurate measure of delivery performance**
 - **Less subjectivity on when a DDR is issued**
 - **Less manual work required**
- **Slightly looser grade scale but more DDRs**
 - **Expect fewer As and Bs at first**
 - **Will drive improvement**

International Transportation

Expect supply/demand driven buyer's market

Manage supply chain security

Support ASN process rollout

Continue focus on cost

- indentifying ocean consolidation opportunities
- scrutinizing air expedite expenses

Vancouver labor issue continues

- Lacey Act: Stringent requirements on broad range of plant products. Phase I implementation April 1, 2009
- CPSC: New lead content/lead paint requirements on all youth product

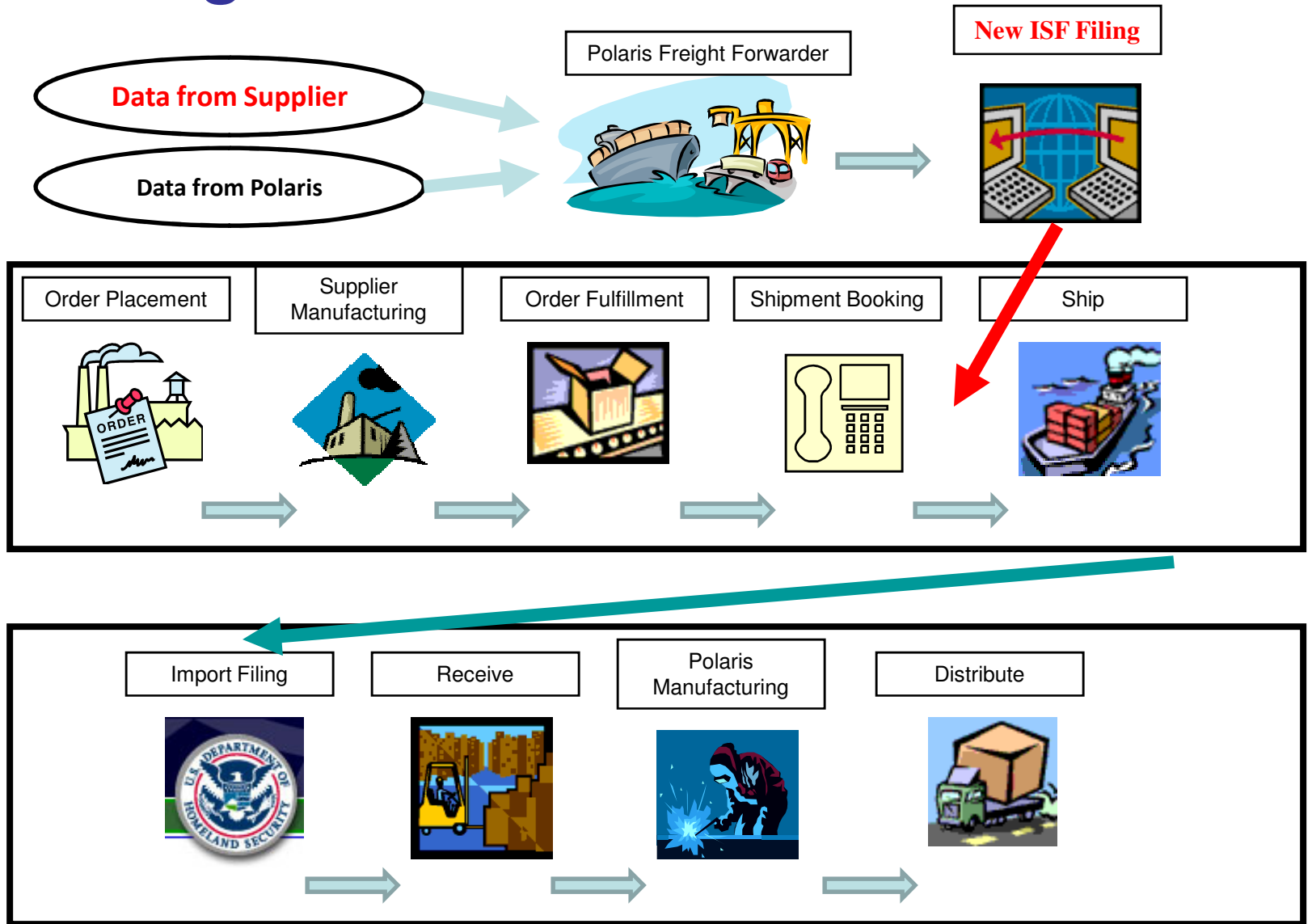
Customs-Trade Partnership Against Terrorism (aka C-TPAT)

- **Polaris awarded C-TPAT Tier III Status**
 - Highest level of achievement in the program
 - Less than 300 of 9,000 participants... top 3% Nationally
 - Demonstration of supply chain and security best practices
- **What does this mean?**
 - Movements receive highest level of C-TPAT benefits
 - Less shipment scrutiny, reduced delays and inspections, priority paperwork processing, etc.
- **Ongoing Commitment**
 - Continually review and strengthen security measures throughout international supply chain

ISF = Importer Security Filing

- Also known as “10+2”
- New U.S. legal requirement for pre-shipment security filing on all ocean shipments destined to the U.S
- Requires the electronic transmission of **10 data elements** to U.S. Customs and Border Protection PRIOR to freight leaving the origin port
- Failure to provide the required data elements on time can result in delays, rework, no ship and/or fines
- The 9/11 Commission Act of 2007 requires foreign seaports to scan 100 percent of the cargo entering the United States by 2012.
 - Implementation would have many issues and negatives
 - Some optimism that the ISF program will eliminate the need for 100% cargo scanning, but no official word

Import Logistics Process



Responsibilities for Filing & Data Elements

- **Supplier provides 7 elements**
 - Seller, Buyer, Country of Origin and Ship to name and address
 - Three data elements not previously required on commercial invoice
 - Manufacturer's name and address
 - Container stuffing location
 - Consolidator name and address
- **Polaris will provide freight forwarder with remaining elements**
 - Importer of record number, Consignee number, Commodity HTS
- **Required filing will be made by Polaris named freight forwarder**
 - Based upon information provided by supplier and Polaris

Trade Program Requirements

- **All Suppliers**
 - **Update NAFTA/Customs contact on Supplier Info Sheet (Supplier Website)**
 - **Respond promptly to requests from Focus (Polaris NAFTA coordinator)**
 - **Notify Polaris Purchasing and/or International Trade personnel of all material sourcing/content changes**
 - **Let us know if you are shipping foreign duty paid product to Polaris Osceola**
 - **Carefully scrutinize expedites to the Osceola plant**