NDIA 10th Annual Expeditionary Warfare Conference

Seabasing Logistics CONOPs

Presented by

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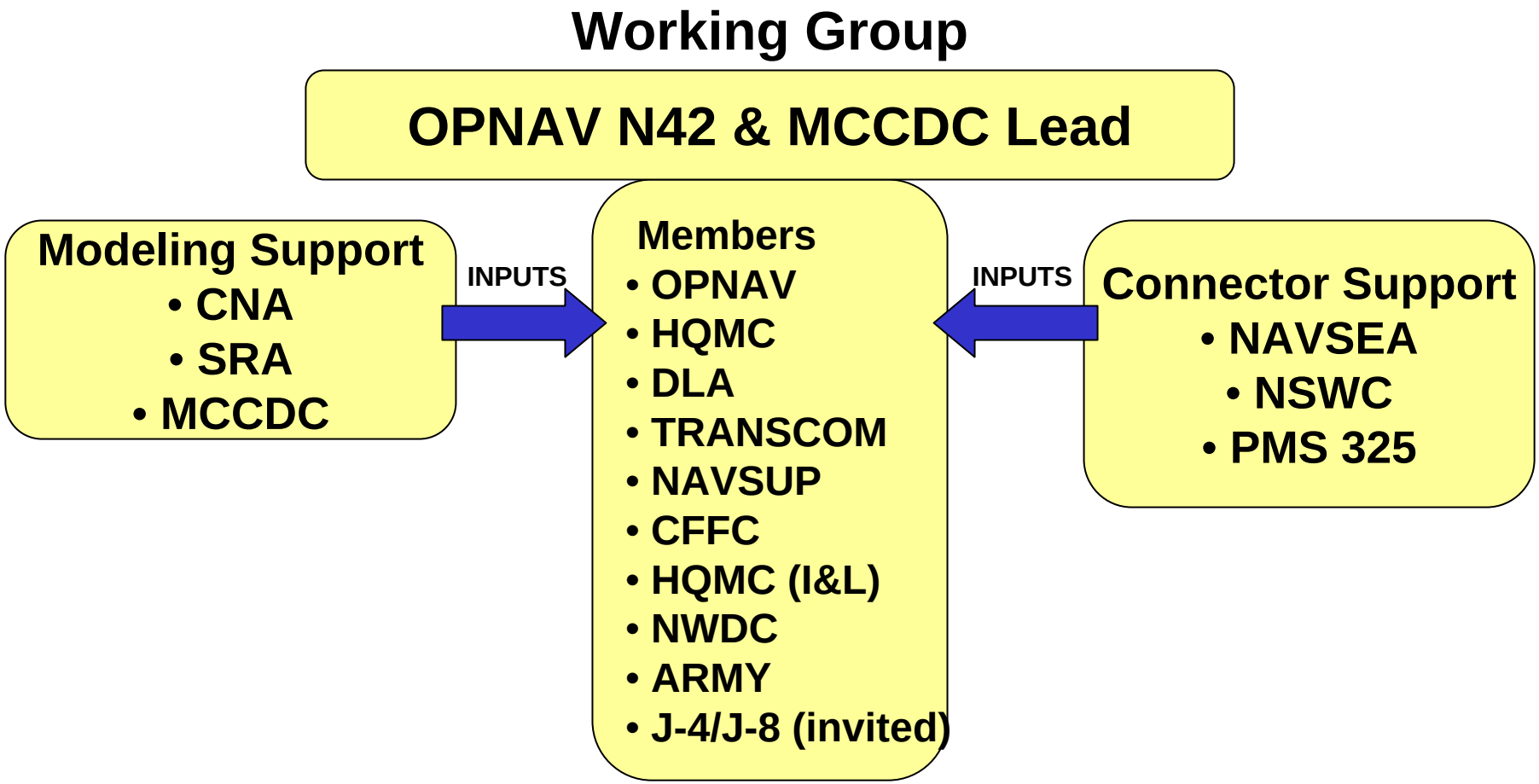
Presentation Overview

- Purpose
- Assumptions
- Architecture
- Analysis
- Preliminary Conclusions
- What's Left

MPF(F) Logistics CONOPs

Obtain agreement on MPF(F) Logistics CONOPs balancing capability, cost, and risk.



Assumptions

- **10 DOS is minimum threshold for MPG forces ashore and afloat**
- **2200nm to the Sea Base from the Advanced Base**
- **T-AKE speed of advance of 20 kts**
- **D-Day, day of MPF(F) assault ashore, occurs at C+15**
- **Advance Bases can trans-ship dry cargo from strategic sealift onto T-AKEs**
- **CLF T-AKEs not used to resupply MPG**
- **MPF(F) T-AKEs not used to support CSG, ESG, or SAGs**

Assumptions (cont.)

- T-AKEs are spread loaded
- T-AKEs limited to 12 hours operations/day
- Helos will be available for inter-ship VERTREP
- Heavy UNREP doubles xfer rate of current connected unrep (potential for 4x)
- MV-22 capable of ship to shore VERTREP off T-AKE
- LMSRs and Big Decks (vice T-AKEs) carry Class IX for their maintenance shops (DOS tbd)
- Ammo for fixed-wing ACE aircraft not stored on MPF(F) LHA/Ds

Cargo Capacities and Daily Consumption Rates

	#	Ship Capacities		
		Cargo Fuel (bbls)	Stores (stons)	Ammo (stons)
LHA(R)	2	26,000	410	673
LHD	1	15,000	410	450
LMSR	3	9,057	880	220
T-AKE	3	23,450	1,360	5,140
MLP	3	26,863	460	0
Squadron		245,110	9,330	17,876

Sustain Daily Consumption

	Class I Stores (stons)	Class III JP5 (bbls)	Class III DFM (bbls)	Class V Ordnance (stons)
MPG	45	5,069	7,056	30
USMC Ashore	20	896	0	112
Army Infantry	14	198	0	30
Army Stryker	16	258	0	75
Army Heavy	12	590	0	250

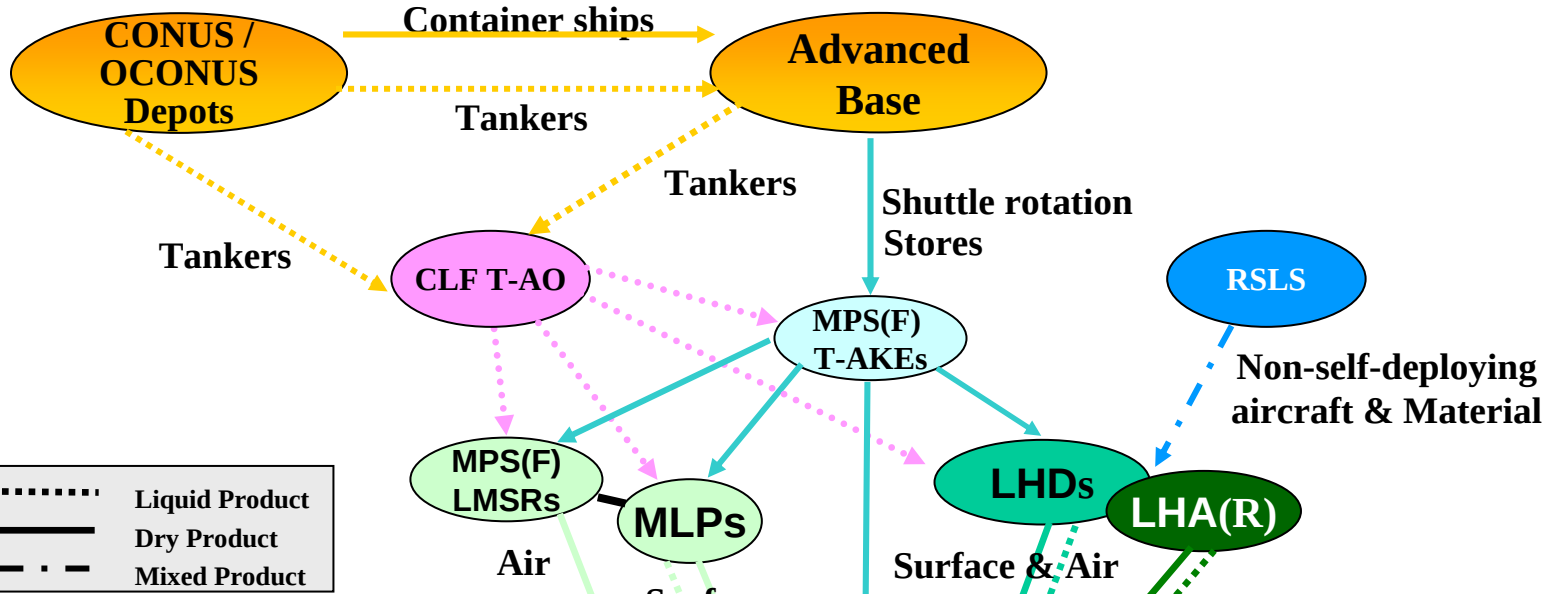
- Daily MEB sustainment (dry-wet :1/3-2/3) takes ~ 100 MV-22 equivalent external lifts
- Each T-AKE carries a minimum 1050-2500 st Class I/V (5-12 MPG + USMC Ashore DOS per T-AKE)
- MPG + MEB Ashore + Army Infantry Brigade = 251 st /day sustained dry

Seabasing Log ConOps

Scope

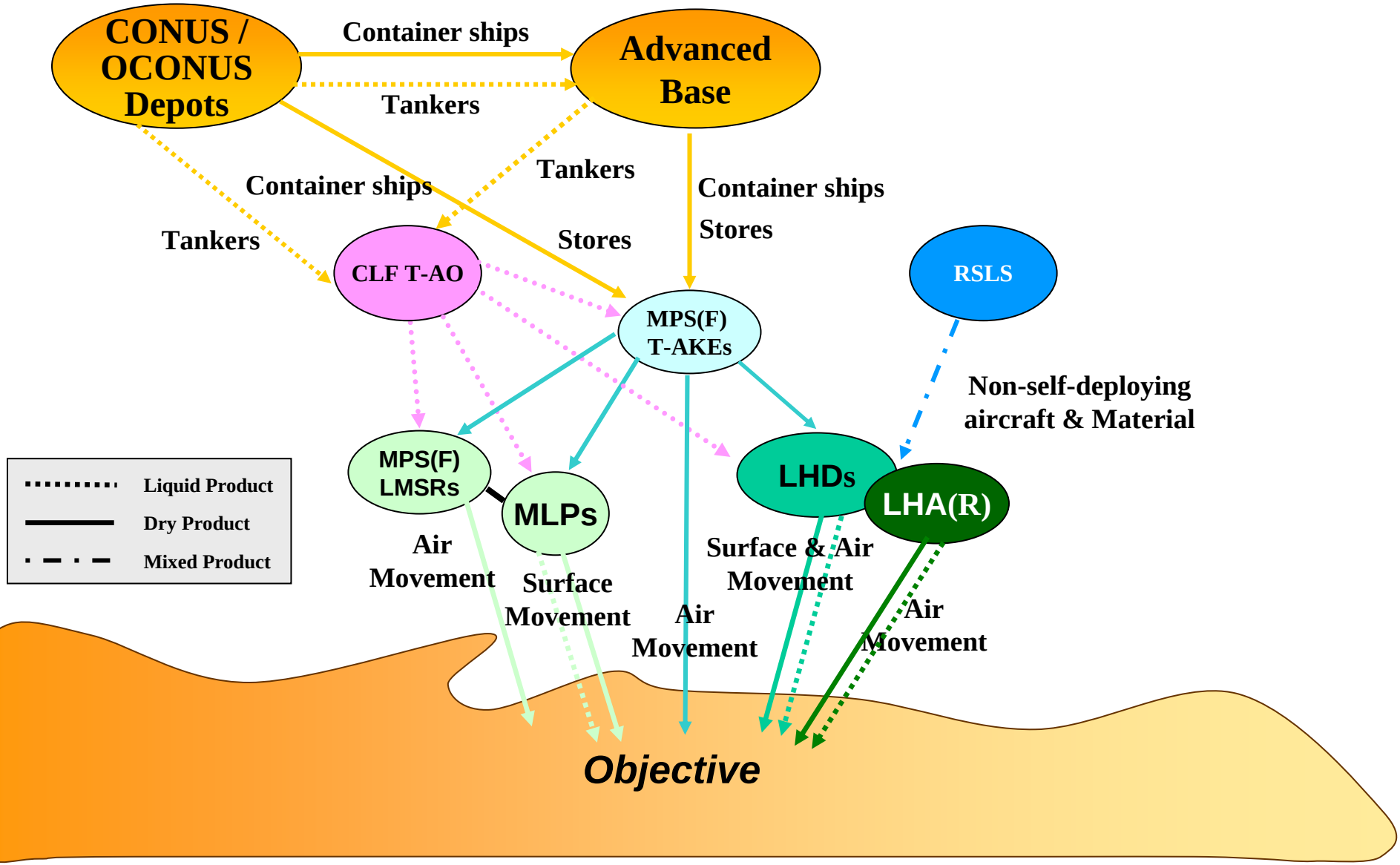
Supply → **Sustainment** → **Demand**

Inter-Theater Re-supply	Intra-Theater Re-supply	Intra-Sea Base Re-supply	Tactical Re-supply



MPF(F) Squadron

Container Ships Resupply T-AKEs Architecture

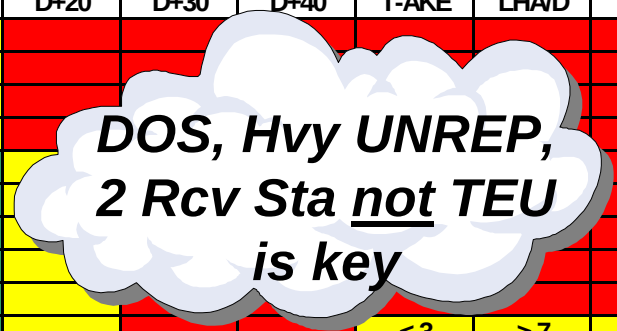


Analysis Variables

- Initial Days of Supply on MPG at D-Day
- T-AKEs resupply via shuttle rotation or container-ships at Sea Base
- Percent of total dry goods sent ashore by ship-type (forces inter-ship transfer)
- Heavy/conventional unrep capability
- Number (1 or 2) of T-AKEs in shuttle rotation
- Number of cargo receive rigs (1 or 2) on LHA/D and LMSR
- Forces supported ashore (quantity and type, e.g. 1 MEB and 1 Army Infantry Brigade)

Preliminary Analysis Results for MPG Sustaining 1 MEB (Dry Stores)

DOS			Unrep Rig		Max Ships Away		Cargo Receive Stations on Big Decks/LMSRs		T-AKE Rcv			Ability to maintain 10 DOS in MPG				Restrictions on Cargo Sent Ashore From Platfrom		
20	30	41	Conv. Unrep	Hvy Unrep	1 Shuttle	2 Shuttle	1 Rcv Sta	2 Rcv Sta	BB	TEU	Adeqaute Unrep resources	D+10	D+20	D+30	D+40	T-AKE	LHA/D	LMSR
X				X		X		X	X									
X			X			X		X	X									
X				X				X		X								
X			X					X		X								
	X		X			X	X		X									
	X			X		X	X		X									
	X		X		X		X		X									
	X		X			X		X	X									
	X		X			X		X	X									
	X			X		X		X	X							<.3	>.7	<.2
	X			X		X		X	X							.3<x<.45	.55<x<.7	0
	X			X	X		X		X							<.6	>.4	<.3
	X		X		X			X	X							<.6	>.4	<.3
	X		X					X		X						<1.0	>.35	<.3
	X			X	X			X	X									
	X			X				X		X								
		X	X			X	X		X									
		X	X		X		X		X									
		X		X		X	X		X							<.55	.4<x<1.0	0
		X		X	X		X		X							<.6	>.4	<.3
		X	X			X		X	X							<.45	>.4	<.3
		X	X		X			X	X							<.6	>.4	<.3
		X		X		X		X	X									
		X		X	X			X	X									



Unexecutable | Operational Rest. | Meets Obj.

Similar results when add 1 Army Light Brigade

MPF(F) Logistics CONOPs Preliminary Conclusions for 1 MEB

- MPG can maintain threshold of 10 DOS for MEB w/ 3 T-AKEs
- <41 DOS would demand additional prepo ship
- MPG has theoretical Class I/V capacity > 100 DOS
- TEU xfer-at-sea not required
- MPG resupply via a T-AKE shuttle rotation effective
  - Best to keep minimum of 2 on station
- LHA/D single conventional cargo receive rig inadequate
- Heavy Unrep on MPF(F) ships (except legacy MPS) throughput enabler

What's left to do

- Ship-to-shore integration
- Supporting the 2nd brigade
- POL to the sea base
- Refined allocation of supply classes among different MPG classes (including Class IV, VIII, IX, etc.)

Questions?

Number of Daily Re-Supply Lifts
--notional MV-22 external lifts--

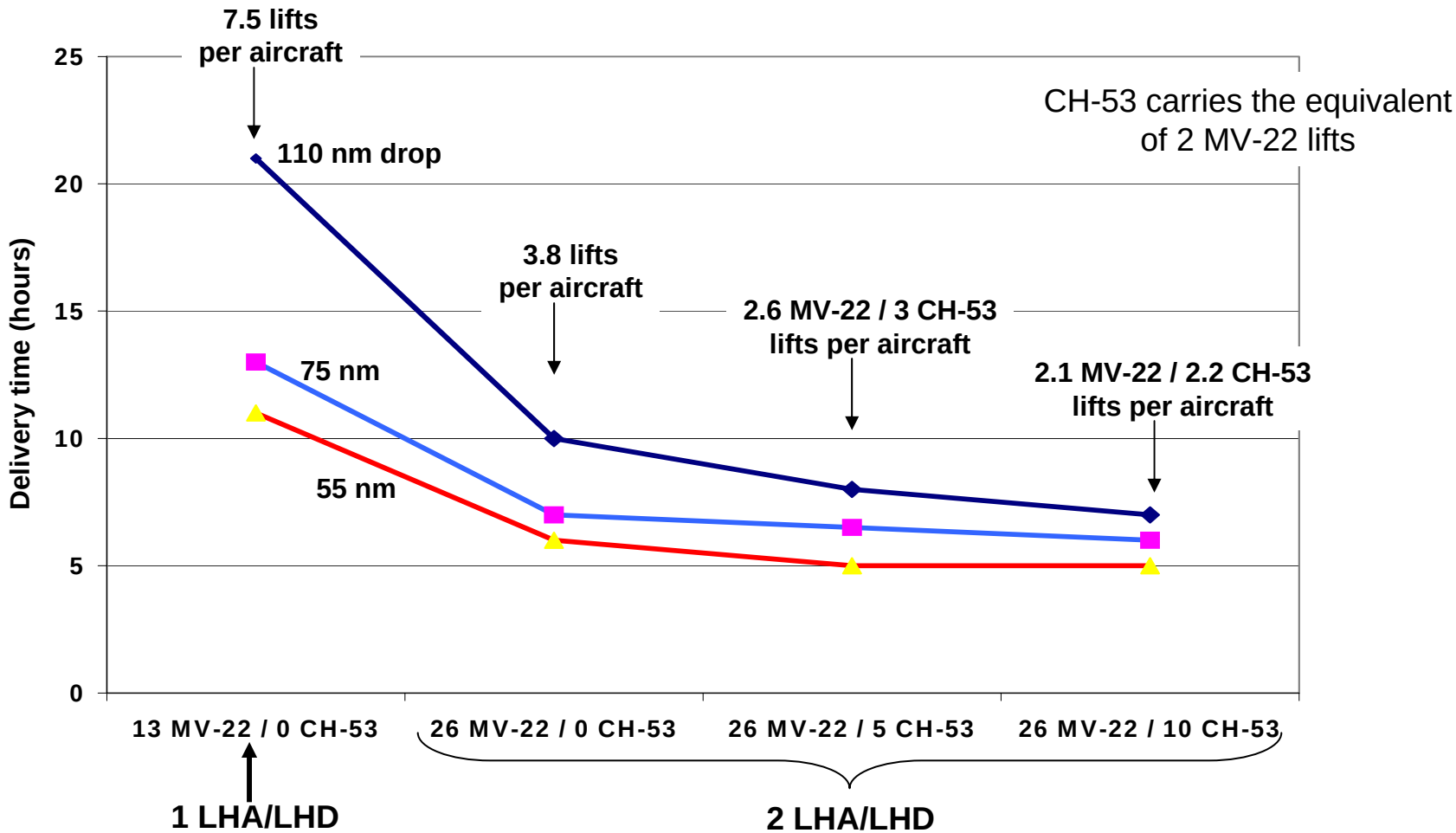
Using max theoretical lift weights for MV-22 lift

	Weight per lift	Surge Day	Sustain Day		Weight per lift	Surge Day	Sustain Day
Ordnance:	4.0 stons	36	28		5.0 stons	29	23
Stores:	3.0 stons	9 – 15	9 – 15		5.0 stons	5 – 9	5 – 9
Fuel:	3.9 stons	50	40		5.0 stons	39	31
Water:	4.2 stons	25 – 42	25 – 42		5.0 stons	21 – 35	21 – 35
Total:		120 – 143	102 – 125			94 – 112	80 – 98

Theoretically smallest possible number of lifts

Source: CNA

Time to Deliver 98 External Lifts Ashore



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