

DISPERSANT AIRCRAFT CAPABILITY FORM

PLATFORM

**CASA C-212-200
AVIOCAR
with modular tank**

Operator: -----

**OSRO: Cook Inlet Spill Response Inc
Alyeska Pipeline Corp./SERVS**



Photo from web site Planecrashinfo.com see aircraft specs

DATA SOURCE LEGEND

- 1. (Black):** Indicates the data are based on documented field trials or is a fixed design value
- 2. (Blue):** Indicates the data are based on limited field observations or operator's stated practice or stated value (little or no documentation)
- 3. (Red):** Indicates the data are based on reasonable calculations or performance of comparable systems

		Unit	U.S. Regulatory Calculation Values	Data Source 1-2-3	Range	Reference(s)
AIRCRAFT PARAMETERS						
1	Swath Width	feet	60	3	40-70	Estimate from similar aircraft
	a. Application (gallons per acre)	gpa	5	3	1-10	Estimate from similar aircraft
	b. Altitude	feet	50	3	15-100	Estimate from similar aircraft
	c. Application Speed	knots	140	3	140-160	Estimate from similar aircraft
	d. Pump Rate (gallons per minute)	gpm	-----	3	15-260	Estimated from typical spray systems
	e. Boom Pressure (pounds/square inch)	psi	-----	3	15-45	Estimated from typical spray systems
2	Transit Speed at Altitude From Base to Staging Airport	knots feet	170 <12,000	2	160-200 <12,000	Aircraft operator provided
3	Transit Speed at Altitude Staging Airport to/from spill	knots feet	165 <1,500	2	140-200 <1,500	Aircraft operator provided
4	Dispersant Spraying Reposition Speed	knots	140	3	130-160	Estimate from similar aircraft

5*	Time to Fully Load Dispersant Tank	min	5	3	5-45	Estimate from similar systems
6*	Time to Fully Load Fuel Tanks	min	5	3	5-45	Estimate from similar systems
7	Load Dispersant & Fuel simultaneously (Yes/No)	-----	YES	3	YES	Estimated from similar aircraft operations. See below 5*-6*
8	Time to Make U-turn (Turn 180 degrees)	min	1.0	3	1.0-1.5	Estimate from similar aircraft
9*	Dispersant Payload Maximum	gal	500	2	500	Aircraft operator provided
10	Fuel with maximum dispersant payload	lbs	2,196	2	2,196	Aircraft operator provided
11	Approach Distance for spraying	nm	.5	2	0.5-1.0	Aircraft operator provided
12	Departure Distance for spraying	nm	.5	2	0.5-1.0	Aircraft operator provided
13	Taxi Time Take-Off	min	3	3	2-15	Estimate from similar aircraft operations
14	Taxi Time Landing	min	3	3	2-15	Estimate from similar aircraft operations
15	On-site Check-In/Safety Time	min	10	2	5-15	Estimate from exercise observation
CASCADE PARAMETERS*						
16*	Take-off with Maximum Payload and Maximum Take-off Weight (assume no wind and VFR fuel reserve)					
	a. Maximum Flight Time	hours	1.1	2	1.1	Aircraft operator provided
	b. Maximum Flight Range	nm	181	2	181	Aircraft operator provided
	c. Optimal Altitude	feet	17,000	2	17,000	Aircraft operator provided
	d. True Air Speed	knots	165	2	165	Aircraft operator provided
	e. Fuel Consumption	lbs/hour	800	2	800	Aircraft operator provided
17	Take-Off with Maximum Fuel and No Payload (assume no wind and VFR fuel reserve)					
	a. Maximum Flight Time	hours	4.0	2	4.0	Aircraft operator provided
	b. Maximum Flight Range	nm	680	2	680	Aircraft operator provided
	c. Optimal Altitude	feet	19,000	2	19,000	Aircraft operator provided
	d. True Air Speed	knots	170	2	170	Aircraft operator provided
	e. Fuel Consumption	lbs/hour	780	2	780	Aircraft operator provided
18	Staging area briefing	min	30	2	30-60	Exercise Observation

AIRPORT PARAMETERS						
19	Runway length - Minimum (For take-off at maximum gross weight assuming sea level, 90° F, no wind using a balanced field concept, i.e., go, no go speed)	feet	3,850	2	3,850	Aircraft operator provided
20	Runway weight restrictions for maximum aircraft weight	lbs	16,976	2	16,976	Aircraft operator provided
OTHER COMMENTS						
5*-6*	The time to load dispersants and fuel are stand alone times independent of each other. If item 7 indicates that fuel and dispersants can be loaded simultaneously, then the longer of fuel or dispersant load time is used in the capability calculations. If item 7 indicates fuel and dispersants can NOT be loaded simultaneously, then the times are added together to calculate the aircrafts capability. To load simultaneously depends upon the airport, aircraft, and support crew. The loading times depend upon the loading system i.e., 5000 tank truck, 55 gallon drums or other means and the pumping system used. The time shown in items 5 and 6 is for loading from a tank truck which is standing by ready to commence loading when the aircraft comes to a stop in the loading area, i.e. the fastest loading time possible.					
9*	Maximum payload depends upon the weight of the dispersant per gallon. The calculations provided are for the heaviest dispersant, Corexit 9527, weighing 8.5 lbs/gallon. For this aircraft the payload can be reduced from 500 gallons and the fuel increased to extend the range of the aircraft. Specific loading charts for the aircraft should be consulted in determining these values.					
*	Cascade Parameters: The aircraft's calculated capability when cascading uses the same fuel loading and taxi times for dispersant operations as listed in items 6, 13 and 14.					
16*	Calculations are based on empty weight plus crew and the gross take-off weight using Visual Flight Rules for a 30 minute reserve of fuel. Payload, endurance and range depend upon the weight of the dispersant per gallon. The calculations provided are for the heaviest dispersant, Corexit 9527, weighing 8.5 lbs/gallon. Increased range may be obtained by increasing fuel and decreasing dispersant to the maximum fuel load for the aircraft. Specific loading charts for the aircraft should be consulted in determining payloads versus fuel loading to account for the specific aircraft, temperature, humidity, airport altitude, etc.					