

ESPA CAMP Weather Modification Cost Estimate

		Season					
		'08-'09	09-'10	10-'11	11-'12	12-'13	13-'14'
Component	Unit Cost						
<b>Ground Generator's</b>							
<b>Manual</b>		\$ 100,956	\$ 117,000	\$ 117,000	\$ 117,000	\$ 117,000	\$ 117,000
<b>Remote Capital</b>		\$ 72,750	\$ 179,000	\$ 318,000	\$ 457,000	\$ 524,000	\$ 524,000
# Units		3	10	20	30	35	35
Equipment Cost / yr (10 yr life)	\$ 2,500 per year	\$ 7,500	\$ 25,000	\$ 50,000	\$ 75,000	\$ 87,500	\$ 87,500
<b>O&amp;M</b>		\$ 65,250	\$ 154,000	\$ 268,000	\$ 382,000	\$ 436,500	\$ 436,500
<b>Data</b>		\$ 50,850	\$ 46,050	\$ 50,850	\$ 50,850	\$ 50,850	\$ 50,850
Rawinsonde							
Equipment (10 yr life)	\$ 2,000 per year	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000
O&M	\$ 26,050 per year	\$ 26,050	\$ 26,050	\$ 26,050	\$ 26,050	\$ 26,050	\$ 26,050
Radiometer							
Equipment (10 yr life)	\$ 18,000 per year	\$ 18,000	\$ 18,000	\$ 18,000	\$ 18,000	\$ 18,000	\$ 18,000
O&M	\$ 4,800 per year	\$ 4,800	\$ 4,800	\$ 4,800	\$ 4,800	\$ 4,800	\$ 4,800
<b>Aircraft</b>	\$ 425,000 per year	\$ 425,000	\$ 425,000	\$ 425,000	\$ 425,000	\$ 425,000	\$ 425,000
<b>Assessment</b>				\$ 298,513	\$ 298,513		
Trace Chemistry	\$ 250,000						
Target Control	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500
NWSRFS modeling	\$ 2,000 per year	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000
<b>Sampling Background Silver</b>	\$ 125,000 per session		\$ 125,000			\$ 140,689	
<b>Total Project Cost</b>		\$ 227,056	\$ 773,550	\$ 1,042,350	\$ 1,354,863	\$ 1,421,863	\$ 1,264,039

**Notes:**

Actual for '08-'09, '09-'10 & later est based 25 gens for 5750 hrs <sup>(1)</sup>

Annualized capital cost of remote generators. IPC Labor<sup>(2)</sup>, equipment maintenance, communication, materials, travel.

Annualized capital cost of equipment. Assumes 100 launches / year<sup>(3)</sup>

Annualized capital cost of equipment. Equipment maintenance (labor)

Per Hans Ahless, WMI (based on Payette)

Based on 2003 Payette assessment  
Based on '08 - '09 analysis

Based on ROUGH estimate from DRI for Payette to sample silver in watershed <sup>(5)</sup>.

- Notes:** All estimates are in 2009 dollars. No inflation added.
- All capital costs assume an equipment life of 10 years, straight line depreciation.
  - (1) It is possible that this number may reduce as more remotes come on line.
  - (2) Labor includes a meteorologist and 2 specialist in addition to crew req'd for Payette.
  - (3) \$75/launch, \$175/mo facility, \$150/sonde, \$25 He/launch
  - (4) Assume 2 days / moth maintenance, 6 months / yr
  - (5) Baseline data would be useful for permitting on federal lands as well as addressing toxicity concerns.