Air Tractor
Aerial Fire-Fighting Solutions

Fire Agency Briefing

Valley Air Crafts – Tulare, CA
Authorized Air Tractor Dealer for California
September 2015
Introduction

- Valley Air Crafts and Air Tractor are very pleased to provide this Air Tractor AT-802 briefing package to fire agencies throughout the United States.
Air Tractor - An American Success Story

- 3,500 aircraft built in the U.S.
- Ag, fire, and military missions
- 400 AT-802 aircraft built
- 75 scooper “Fire Bosses”
- 75+ 802s/Fire Bosses currently fighting fire in the United States
The Air Tractor AT-802

- Purpose-built for rapid initial and sustained attack on forest fires
  - *800 gallon tank*
  - Turbine power
  - Rugged airframe
  - Low operating and maintenance costs
  - Constant flow fire gate
  - Quick fill loading system on ground
  - Optional water scooping floats systems
  - Optional foam or gel injection
  - Fast and highly maneuverable
  - Operate from relatively short runways or remote airstrips
The AT-802 is “Bigger” Than You Think

- 16,000 pound gross weight
- 60 foot wing span
- 36 foot length
- 1,350-1,600 hp engine
- The Fire Boss is 2-stories high!
- The 800 gallon water tank is more than 6 feet deep
- More than twice the gross weight and carrying capacity of a typical medium helicopter (e.g. Bell Huey)

Air Tractor Fire-Fighting Solutions
AT-802 SEAT Tactics

- Dispatched from an airport loaded with retardant, water, or gel
- Drop load on fire and return to the airport for reload
- 1-4 loads (800-3,200 gallons) per hour
AT-802 Fire Boss Scooper Tactics

- Dispatched from an airport loaded with retardant, water, or gel
- Remain at fire for 3+ hours scooping water from nearby source
- Return to the airport or airstrip for fuel and reload
- Up to 20 loads (13,000 gallons) per hour
- Similar to helitack strategy
Air Tractors at Work in WA State - 2015

Fire Boss AFF position reports for a 2-hour period in Washington State showing multiple water scoops and drops.
<table>
<thead>
<tr>
<th>Type</th>
<th>Gross (Lbs.)</th>
<th>Load (USG)</th>
<th>Price New</th>
<th>Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT-802A</td>
<td>16,000</td>
<td>800</td>
<td>$1,700,000</td>
<td>AV: $2,700 FT: $2,700</td>
</tr>
<tr>
<td>AT-802A Fire Boss</td>
<td>16,000</td>
<td>800</td>
<td>$2,700,000</td>
<td>AV: $4,300 FT: $4,200</td>
</tr>
<tr>
<td>Bell 407</td>
<td>5,250</td>
<td>210</td>
<td>$2,700,000</td>
<td>AV: $3,600 FT: $1,200</td>
</tr>
<tr>
<td>KMAX 1200</td>
<td>12,000</td>
<td>700</td>
<td>$5,100,000</td>
<td>AV: $24,960 FT: $1,700</td>
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<tr>
<td>CL-415 Super Scooper</td>
<td>47,000</td>
<td>1,600</td>
<td>$42,000,000</td>
<td>AV: $53,000 FT: $11,000</td>
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</table>
## Cost/Gallon Delivered (4 FT Hours/Day)

<table>
<thead>
<tr>
<th>Type</th>
<th>Cost/Hr</th>
<th>Loads/Hr</th>
<th>Gals/Hr</th>
<th>Cost/Gal</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT-802A</td>
<td>$3,375.00</td>
<td>3</td>
<td>2,400</td>
<td>$1.40</td>
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<tr>
<td>AT-802A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fire Boss</td>
<td>$5,275.00</td>
<td>10</td>
<td>6,400</td>
<td>$0.82</td>
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<tr>
<td>Bell 407</td>
<td>$3,300.00</td>
<td>6</td>
<td>1,260</td>
<td>$2.62</td>
</tr>
<tr>
<td>KMAX 1200</td>
<td>$7,940.00</td>
<td>6</td>
<td>4,200</td>
<td>$1.89</td>
</tr>
<tr>
<td>CL-415 Super Scooper</td>
<td>$24,250.00</td>
<td>12</td>
<td>15,360</td>
<td>$1.58</td>
</tr>
</tbody>
</table>

1. Cost/Hr = Daily AV rate/4 hours + FT Hourly rate
2. Loads per hour assumes same distance from water source to fire for scoopers and helicopters
3. Loaded speed for helicopters is 90 knots – Fire Boss is 150 knots – CL-415 is 180 knots
4. Scooper loads reduced by 20% - assume max load for helicopters
## Variable Cost Comparison with Bell Hueys

<table>
<thead>
<tr>
<th>Type</th>
<th>Capacity</th>
<th>Cost/Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT-802A</td>
<td>800</td>
<td>$730.00</td>
</tr>
<tr>
<td>AT-802A Fire Boss</td>
<td>800</td>
<td>$980.00</td>
</tr>
<tr>
<td>Bell UH-1H (Cal Fire)</td>
<td>350</td>
<td>$1,530.00</td>
</tr>
<tr>
<td>Bell 212 (San Diego FD)</td>
<td>360</td>
<td>$1,552.00</td>
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<tr>
<td>Bell 412 (San Diego FD)</td>
<td>360</td>
<td>$1,853.00</td>
</tr>
</tbody>
</table>

1. Cost/Hr includes fuel, maintenance labor, parts, engine/prop/rotor reserves, and misc. costs
2. Cost information provided by Conklin & DeDecker and Air Tractor
A Few Facts

• For the $42 million price of ONE CL-415 you can buy 24 AT-802s on wheels or 15 AT-802 scooper Fire Bosses
• For the cost of a single CL-415 you could purchase a pair of AT-802s and/or Fire Bosses for every airport within northern LA County (e.g. San Gabriel Valley)
• This year the MN-DNR replaced its 2 aging CL-215s with Air Tractor contract aircraft (4 Fire Bosses and 3 wheeled 802s). The DNR has concluded that it: 1) Doubled the amount of fires actioned; 2) Had no escaped/large fires; 3) Enhanced ground fire-fighter productivity, and 4) saved well over $1.5 million in fixed wing aircraft costs

$42 million can buy you ...

1,600 gallons

or

14,400 gallons

Air Tractor Fire-Fighting Solutions
Concluding Remarks

• Many U.S. fire agencies are or will be into air fleet modernization programs in a very tight fiscal environment
• Some are already investing millions to upgrade 30-50 year old aircraft (e.g. State Huey helicopters)
• New aircraft options are often beyond budgetary means (e.g. $42 million for a CL-415; $16 million for a Bell 412)
• Factory new Air Tractors are a highly cost effective and “Made in America” solution
• Give Air Tractor the chance to prove that its AT-802 fire-fighters can work for you!
Thank You!

Air Tractor Fire-Fighting Solutions