

## Research & Technology Status

(S. Franz - 31 January 2005)

- **Test Lab Status**

- 105 CTi
  - DAT in Process
    - Completed
      - Part Inspection Data Compiled
      - Preliminary Measurements
      - Live Round Extraction
      - High Pressure Abuse
      - SAAMI Jar-Off, Drop and Rotation
      - Initial Jack and Shoulder Function
      - Five Field Cycle tests
    - Endurance Status
      - At 7.5K on 5 guns
      - Part breakage data being compiled
      - No major components breaking, although we did break one of the latest Cam pins (heat treat was incorrect), springs setting/breaking, feedlatches setting, Fore-ends, 1 rib...)
      - **Need to get new guns with the latest changes to really assess the current design**
      - **No BOI since action bar change**
    - Remaining
      - Environmental (Cold, Hot, Heat & Humidity, Thermal Cycle)
      - Salt Fog & Rain
      - Additional Abuse (12/20, wad obstructions)
      - Dry Cycle
      - Debris Tests
      - Pattern & POI
- 710 Extruded Receiver
  - T&P Started – Expect completion in February
- 2005 Spartan Line Testing
  - Q/U Combo Testing Complete – No Issues to report
  - 16-Ga SXS Testing Complete – Recommend checking clearance between trigger and trigger guard. I will communicate a minimum acceptable clearance soon.

- **Current R&T Group Status**

- Proposed 2005 Budget (told to reduce Board approved budget by 5%)

- Operations line items: **\$153K** (was \$190K in '04, Actual \$135K)

<u>Budget Line Item</u>	<u>Proposed '05</u>	<u>From '04 Budget</u>
• Computer Supplies	\$ 7.35K	(No Change)
• Lab Supplies	\$51.00K	(- \$5.7K)
• Computer Hardware	\$21.62K	(- \$7K)
• Computer Hardware Main	\$ 4.90K	(- \$2.3K)
• Computer Software	\$ 2.05K	(- \$.75K)
• Software Maintenance	\$45.50K	(- \$15K)
• Env. Compl.	\$20.64K	(- \$6.3K)
<b>Total</b>	<b>\$153.0K</b>	<b>(-\$37K)</b>

- Proposed R&T Project Budget: **\$190K** (was \$350 in '04, spent \$88K)

- Focused on Firearms and Ammo project support in '04
- Expect this to continue in '05 but to a lesser degree
- Will concentrate on open Research Project's f/previous years
- Will include \$'s to support:
  - Ammunition Projects \$23K
  - Firearms Projects \$58.5K
  - Technology \$13.5
  - Accessories \$55
  - Target Plant \$30
  - MPD/Law Enforcement \$10
  - Total \$190K

An R&T project budget of \$190K is substantially under previous year budgets but is more in line with historical expenditures. I could supply more detailed project information if you'd like to review specific projects. If you have a project you would like us to work on please let me know and I'll add this to our project list.

**R&T Project  
Expenditure  
History (\$K)**

<u>Year</u>	<u>Actual</u>	<u>Budget</u>
2002	155	305
2003	137	321
2004	88	312.5

- Clay Targets
  - Cammerzell Project
    - Activity terminated by Cammerzell
    - Concerns:
      - High Target Cost-(Due to energy requirements)
      - Couldn't demonstrate acceptable trap breakage rates
      - Large capital required
  - Working with Dayton, OH lab to solve material problems(deformation under high temperature and trap breakage)
  - Expanding in-house Clay Target making capability to eliminate sourcing product
- New Varmint Target Stock (H-S Precision replacement)
  - In design/definition phase — working w/John Trull and Ilion
- PDM Software conversion from **SmarTeam** to **PdmWorks**
  - Installed – Database conversion in process (saved maintenance \$'s in '05 )
- **Other Topics for Discussion?**
  - Etron-X Technology Interest
    - Discussion between Military Products (Ed Schoppman) & MTC Technologies. They're developing a new concept small arms weapons system for a DARPA military contract and want to use Etron-X technology.
    - 2<sup>nd</sup> contact interested in networking Etron-X Guns for group sniper applications.
  - Turbex Project (Liquid Stun Gun)
    - Meeting held at E-town on Nov. 2<sup>nd</sup>-3<sup>rd</sup> with Greg Foster & Dale Danner
    - Prototype and liquid in E-town
    - Danner is **not** optimistic on technology
    - Testing to commence 2<sup>nd</sup> week in February
  - SHOT Show for Cook/Franz – THANKS for allowing us to attend