

# "The United States Government remains committed to encouraging and facilitating a viable, healthy, and competitive U.S. commercial space transportation industry."

U.S. 2013 NATIONAL SPACE TRANSPORTATION POLICY

President Obama signed a new National Space Transportation Policy in November 2013 that urges the U.S. to focus on its own commercial capabilities. Alaska Aerospace Corporation has been preparing for this opportunity during the past year, and the following pages outline our progress. This annual report highlights our launch capabilities and services; discusses our recent growth and future plans; tells of our commitment to education and the communities in which we operate; and discloses our financial statements.

We appreciate your review of the Alaska Aerospace Corporation 2013 Annual Report, and welcome your feedback.



## Alaska Aerospace Corporation Board of Directors

The nine-member Board of Directors is appointed by the Governor in accordance with the requirements of Alaska Statute 26.27.020.



PATRICK K. GAMBLE, CHAIR
President, University of Alaska Statewide System
General, USAF (Ret)

"I believe strongly that Alaska's future potential as a state will only come about as a result of earning national respect for being economically and technologically progressive, highly innovative and nimble in decision-making, and being overall well-educated. Those winning attributes are foundational to AAC."



**DRUE PEARCE, VICE CHAIR**President, Spill Shield Incorporated
Senior Policy Advisor, Crowell & Mooring LLP
Former Alaska State Senator and Representative

"Our people – the entire staff – are what makes doing business with AAC a pleasure....they work for what's best for the corporation."



DR. ROBERT P. MCCOY

Director, University of Alaska Fairbanks, Geophysical Institute

"I am most proud of AAC for being flexible, innovative, and for making significant strides to lower the time and cost needed to launch a satellite."



**DAVID J. WELDON, MD**Partner, MIMA Physician Group
US Congressman, Florida (Retired)

"AAC has managed to create a world-class, state-of-the-industry launch complex at a fraction of the cost of our federal facilities."



#### DR. RONALD M. SEGA

Vice President for Energy, Environment, and Applied Research, Colorado State University Former Under Secretary of the U.S. Air Force Two-time astronaut on Space Shuttle Discovery Major General, USAF (Ret)

"The Kodiak Launch Complex is a strategic asset for the United States and I am proud to have the opportunity to serve on the Alaska Aerospace Corporation Board."



MAJOR GENERAL THOMAS H. KATKUS

Adjutant General, Alaska Army National Guard Commissioner, Department of Military and Veterans Affairs

"The leadership of AAC has established an environment that is fostering success, and I look forward to multiple contracts signed in 2014."



#### JAMES D. UNDERWOOD

Vice President, Business Development and Federal Services, URS Federal Services, Inc. Rear Admiral, USCG (Ret)

"Before StarTrek, Alaska was the final frontier. Frontiers have always represented challenge and opportunity. Combining Alaska and space offers the best of both."



#### LINDSAY C. KNIGHT

Owner, Kodiak Athletic Club Past President, Kodiak Chamber of Commerce

"AAC is now on the brink of breaking into new, diversified economic ventures, to include a launch in 2014."



#### THOMAS D. WALTERS

Owner, Maritime Helicopters

"From the beginnings of AAC the pioneers of this project were farsighted and understood the economic benefits for America, for the State of Alaska, and the Island of Kodiak. The Kodiak City Council, Kodiak Island Borough, Alaska Legislators, the Governor of Alaska, and Alaska's residents are all a part of the space pioneer spirit and should be proud."



#### SENATOR GARY L. STEVENS (non-voting)

Senator, State of Alaska

"I trust we will soon see AAC take its place as one of the preeminent launch facilities in the country."



REPRESENTATIVE LORA H. REINBOLD (non-voting)

Representative, State of Alaska

"AAC is diversifying Alaska's economy and putting us on the forefront of technology."

## Chairman of the Board of Directors Letter

To Governor Parnell, State Legislators, and Fellow Alaskans:

As the Alaska Aerospace Corporation (AAC) begins its 23rd year as the state's aerospace industry development engine, it is my great privilege to serve as Chairman of its Board of Directors. As a Board, we share responsibility for the success of the corporation, and for its direction. It was my pleasure to welcome Rep. Lora Reinbold this year as one of our members, and part of our team.

This past year, AAC re-evaluated and restructured its business development plan. In today's challenging aerospace industry environment – in which nearly 80 percent of U.S. commercial satellites are being launched from foreign facilities – competitive launch pricing and streamlined operations win contracts. As we begin a new year, it is exciting for all of us to watch our efforts come to fruition in the form of a 2014 launch contract, multiple strategic partnerships, and new business ventures.

Governor Parnell and the Legislature continued their strong support by investing \$8 million of the FY2013 budget in continued operations. By recognizing KLC as a state asset and contributing to its overhead expense, they ensure that AAC can compete in a global market where launch services are becoming more efficient and less expensive. That said, AAC is committed to a phased reduction of state appropriations as it secures new contracts and service agreements.

The AAC team has done a tremendous job promoting Alaska as a geographic advantage, and KLC as a value-added spaceport. Advertising our capabilities, defining our market segment, and participating in public policy discussions that advocate the national benefit of state spaceports are but a few examples of the corporation's endeavors this past year.

As the Board of Directors anticipates a new year and much activity at KLC, it is my pleasure to share with you the preparation and progress that brought us here, in these following pages of the Alaska Aerospace Corporation 2013 Annual Report.

Sincerely,

Patrick K. Gamble Chairman of the Board

## President and Chief Executive Officer Letter

To Governor Parnell, State Legislators, and Fellow Alaskans:

I am pleased to report that 2013 was a year of positive development for Alaska Aerospace Corporation (AAC). The Corporation not only secured a multi-year, commercial service launch contract for 2014, but as the year came to a close, AAC was in negotiation with a number of potential customers interested in using the Kodiak Launch Complex (KLC) for additional small-lift operations. The tide has turned; the progress of the past year is the renaissance of KLC as a world-class, commercial spaceport ready to capitalize on its state-of-the-industry facilities, strategic location, and cost-effective launch and support services.

To promote such growth, AAC implemented an aggressive business development effort focused on opportunities in launch, support systems, and other non-traditional business. In addition to contracts, AAC pursued several strategic partnerships to develop both its market base and its influence. AAC signed Memorandums of Understanding with the Virginia Commercial Spaceflight Authority and the Hawaii Office of Aerospace Development. Both help AAC expand to markets beyond Alaska, and shared resources make us all more cost-competitive. We also joined the Commercial Spaceflight Federation – a powerful industry advocate in Washington – and we hold a seat on the Board of Directors. Finally, we rejoined the Missile Defense Advocacy Alliance, in an effort to secure more government contracts.

I am proud to say that AAC is increasingly recognized within the aerospace industry as a premier spaceport with a credible business plan and sound mission capability. A clear result of this was our success in securing a contract supporting the arctic testing of the Mobile User Objective System (MUOS) – a next-generation narrowband tactical satellite communications system. The tests proved successful, providing Lockheed Martin with significant data and information for potential future deployment of the system.

Last year, I provided a comprehensive analysis of the U.S. aerospace industry and the challenges facing AAC. Little has changed in the global market, and a majority of U.S. commercial launches still occur overseas. Sequestration and the Federal government shut-down created additional pressures on the industry. However, on November 12, 2013, President Obama signed a new National Space Transportation Policy, committing the Federal government to "encouraging and facilitating a viable, healthy, and competitive U.S. commercial space transportation industry." As a result, AAC has seen increased interest in the capabilities and support services we provide at KLC.

As we enter 2014, AAC is well-positioned to compete for business from government and commercial customers. Our employees are skilled and motivated; we are refining our development strategy and targeting viable contracts; and we have a no-fail launch performance record. I want to thank Governor Sean Parnell and all the members of the Alaska State Legislature for their tremendous support in 2013 – I am confident it will result in a robust and profitable aerospace industry for our great state.

Sincerely,

Craig E. Campbell President and CEO

## Our Capabilities Today

As a small-lift launch site, the Kodiak Launch Complex (KLC) offers our customers the most modern, purpose-built launch facility on the U.S. West Coast for polar, sun-synchronous, and highly elliptical orbits. The facilities are state-of-the-industry and capable of launching any vehicle in our size class. Our trained and experienced work force is able to quickly respond to customer requirements by providing tailored launch services using these facilities.

The PPF is an environmentally-controlled building where payloads can be prepared and integrated. The facility has two large processing bays; a Class 10,000 Clean Room with airlock; and cranes and other handling equipment for the payloads. The PPF has hypergolic fueling capability with

# PAYLOAD PROCESSING FACILITY (PPF)

#### LAUNCH CONTROL CENTER (LOCC)



The LCC is the primary mission administration facility at KLC, with on-site offices and supplies for our customers. It includes our Weather Forecast Center and our radar and communications hubs. The Launch Operations Control Center (LOCC) is also located within the LCC, allowing administrative and launch operations to occur in one location.



This 19,000 square foot facility houses a large customer-support bay; mechanical and electrical tools and equipment; shipping and receiving areas; and offices for KLC administrative, technical, and engineering personnel.

#### INTEGRATION AND PROCESSING FACILITY (IPF)



The IPF provides the enclosed and secure temperature and humidity-controlled environment necessary for the assembly and inspection of rocket motors in preparation for launch. The facility is large enough to support horizontal processing on customer-provided rail-sets or transporter-erectors.

SPACECRAFT ASSEMBLIES AND TRANSFER FACILITY (SCAT)

The SCAT facility is roller

mounted on rails and provides

an environmentally controlled,

orbital Launch Pad 2. It is also

used to expand the processing

over bay of the Launch Service

area in the IPF or the break-

enclosed structure over sub-

#### LAUNCH PAD 2 (LP2)



LP2 is located between the IPF and the LSS, and

is used for the launch of smaller, sub-orbital rockets. Rockets are transferred to Launch Pad 2 within the SCAT from the IPF. The SCAT crane is used to lift the rockets from the transporter-erector onto the launch stool. When final preparations are complete, the SCAT is pulled clear of the launch area.

### LAUNCH SERVICE STRUCTURE (LSS) AND LAUNCH PAD 1 (LP1)



The LSS is a fully enclosed facility with adjustable work platforms that accommodate rockets of various diameters and heights. The LSS is a multi-use structure and converts from an assembly building to LP1. It consists of two structures that are rotated open on circular rails to clear the launch vehicle.

#### RANGE SAFETY AND TELEMETRY SYSTEM (RSTS)



AAC operates and maintains two complete RSTSs to track and record flight data, and to ensure public safety. The RSTS provides S-Band telemetry receipt and recording, as well as command destruct transmission. Each RSTS is fully redundant and can operate independently, or in concert with the other. They are transportable by land, air, and sea.

#### ROCKET MOTOR STORAGE FACILITY (RMSF)



The RMSF includes two 89-foot. long environmentally controlled storage magazines. Each magazine is earth-covered with a 10 foot. x 10 foot. sliding door. The magazines have rail systems that are designed to interface with motor transportation rings and launch vehicle transporter-erectors for fully assembled rockets.

## Preparation

This past year was one of preparation and progress at Alaska Aerospace Corporation (AAC). We targeted organizational and facility improvements, and our corporate strategy focused on making AAC competitive within the national and international aerospace industry. By streamlining operations, cutting customer costs, and building business partnerships, AAC spent 2013 laying the groundwork for growth – for 2014 and beyond.

On the organizational level, we filled two positions essential for gaining new customers and serving existing ones. We hired Chris Sibrel as the new Deputy Director for the Kodiak Launch Complex (KLC), and Michaela Goertzen to do business development and external communications. In addition, to make more efficient use of the staff we already have, AAC established a contract with TekMate, Inc. for communications and IT services, which allowed us to realign two engineers from IT services to launch services and business development. We also reduced lease costs by consolidating offices and decreasing our Anchorage office space by about 25 percent.

One of our greatest challenges during the past year was creating a new pricing model to reduce costs for potential customers. Doing so allows KLC to compete with Federally-subsidized ranges, and we are already seeing new interest. As the year came to an end, AAC's staffing and pricing changes made the corporation better-positioned to support launch operations and focus on business development.

The corporation also made a number of facility upgrades to ensure KLC's state-of-the-industry capability. We upgraded KLC access control security and HVAC control systems; implemented an upgrade to our administrative financial enterprise system; completed deferred maintenance on heavy equipment; and supported the U.S. Coast Guard in the removal of the LORAN Station tower located at KLC. We completed the renewal process for our FAA Commercial Spaceport license, and initiated the application process to conduct international operations under U.S. International Traffic in Arms Regulations. That step was critical to our business development plan, as we seek to attract new small-lift launches from KLC. Finally, AAC is considering Sand Point, Alaska, as a potential off-axis site for our Range Safety and Telemetry System (RSTS), which provides enhanced tracking capability for both current and future launch customers.

Industry outreach and participation in the national space policy discussion were also priorities in 2013. AAC joined the Commercial Spaceflight Federation and secured a seat on its Board of Directors; we rejoined the Missile Defense Advocacy Alliance; we re-engaged the Missile Defense Agency for new opportunities; and we increased our presence at the nation's premier space conference, the National Space Symposium, with a booth in the exhibition hall. We established a working relationship with the Hawaii Office of Aerospace Development to focus on Pacific aerospace requirements; implemented the Alaska-Virginia Memorandum of Understanding on aerospace cooperation, signed by Governor Parnell (AK) and Governor McDonnell (VA); and we hosted General William Shelton, Commander of Air Force Space Command, at KLC to discuss how our spaceport could provide more options for USAF national security launches in future years.



## Progress

In addition to laying the groundwork for growth through planning and preparation, AAC made significant progress in diversifying its services and securing new business. In May of 2013, AAC signed a multi-year commercial launch service contract with Ducommun Miltec for launch services at KLC, to begin in 2014. Subsequently, AAC and Miltec have discussed further collaboration in aerospace services, which could expand AAC's business portfolio beyond launch services from KLC.

Another highlight of 2013 for us was our participation in Space Exploration Technologies Corp (SpaceX) successful mission to the International Space Station. AAC provided RSTS tracking services for the Dragon spacecraft and following its success, we decided to make RSTS services a separate business unit within the company. That allows us to offer mobile tracking services not just from Alaska, but from anywhere a customer may need tracking capability. We expect this business line to grow, providing new opportunities for AAC, as well as an additional revenue stream for the corporation.

Last year Lockheed Martin used AAC to support arctic testing of its Mobile Objective User System (MUOS), which is being developed for the U.S. Navy. MUOS is a next-generation narrowband tactical satellite communications system designed to improve communications for secure users on the move. With AAC help, Lockheed Martin conducted aerial and ground capability testing in areas stretching from Alaska to the North Pole. This was an exciting mission that demonstrated our capabilities to conduct operations that promote mobile communications in harsh, arctic conditions.

Following-up on our initiative, Virgin Galactic contacted us to discuss support for their Launcher One – a program for carrying small satellites into orbit. Since initial conversations, our companies continue to evaluate the benefits of operating some Launcher One missions at KLC.

AAC also partnered with Rocketplane Global Inc., to compete for a contract with the Defense Advanced Research Projects Agency's Experimental Spaceplane (XS-1) program to develop a fully-reusable unmanned vehicle that would provide aircraft-like access to space. XS-1 seeks to deploy small satellites faster and more affordably, while demonstrating

technology for next-generation space and hypersonic flight for both government and commercial users. The contract would further expand our core business model to include other means for access to space beyond small-lift rockets from KLC, and our participation in the proposal process demonstrates our commitment to developing a strong and diversified aerospace industry for Alaska.

Another business area AAC has anticipated is the development of Unmanned Aerial Systems (UAS) in Alaska. The corporation joined with the University of Alaska (UA) to submit an FAA UAS Test Site Selection proposal, and UA was among six test site operators chosen to help the FAA integrate UAS into the national airspace. AAC looks forward to providing technical support as the project unfolds. In addition, AAC hired Peak3 Technical Services Inc. to conduct a study on the business case for operating the GlobalHawk UAS in Alaska. Their initial work was positive, and Peak3 has begun a more comprehensive analysis of the projected customer base and return on investment, should we decide to acquire excess GlobalHawk aircraft from the USAF in the future.

Toward the year's end, the Missile Defense Agency (MDA) reached out to discuss the use of KLC for future launches. Among the variety of opportunities raised by MDA, the most interesting was KLC's potential support of the Ground-based Midcourse Defense targets program. From 2004 to 2008, AAC supported the GMD targets program with launches from KLC, and it is with great interest that we engage in discussions with MDA that could bring a segment of that program back to KLC, or offer AAC new opportunities for supporting MDA missions.

## Recognition

For all of this effort, we were proud to be featured in the May edition of Alaska magazine. Their story exposed AAC and KLC to a large audience, showcasing KLC as a tremendous asset, and highlighting Alaska's commitment to aerospace development. The past year proved that not only is AAC realigning itself to meet the needs of our customers and the challenges of the industry, but that people are taking notice.

## **Our Communities**

Alaska Aerospace continues to contribute to the growth and development of the communities in which we work and live. We are grateful for their support of our mission, and we appreciate the opportunity to support them, in turn.

#### **Kodiak Community Involvement**

Our largest concentration of employees is in Kodiak, and they all are residents of the Island. We support local schools through KLC site tours, are members of the Kodiak Chamber of Commerce and the Kodiak Convention and Visitors Bureau. We contribute to local events such as Crab Fest, Coast Guard Day, and Business After Hours. During FY2013, AAC contributed over \$3.3 million in wages and the purchase of goods and services in the Kodiak area.

## **Greater Anchorage Area and Kenai Peninsula Community Involvement**

During the past year, AAC contributed over \$3.6 million to the economies of the greater Anchorage area in wages and the purchase of goods and services. We are members of the Anchorage and Chugiak-Eagle River Chambers of Commerce, the Anchorage Economic Development Corporation, and Commonwealth North.

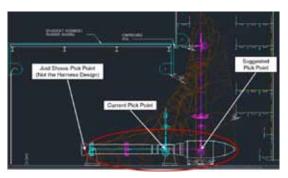
AAC is likewise committed to developing a local, skilled workforce, trained in the Science, Technology, Engineering, and Mathematics (STEM) fields. This past year, the corporation provided an instructor for an Opportunities for Lifelong Education (OLÉ) course at UAA, entitled "Alaska and the Aerospace Program." We also continued our financial support of the Challenger Learning Center of Alaska (CLCA) in Kenai for their summer camp STEM curriculum.



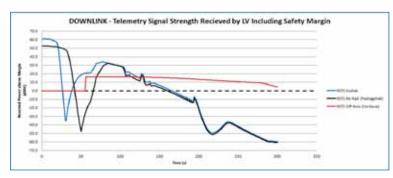
**CLCA Eggstranauts** 

## Intern Program

Alaska Aerospace welcomed two engineering interns this past summer: Sarah Hoffman of Anchorage and Carl France of Fairbanks, both senior Engineering students at UAF. During their 12-week internship, Sarah and Carl contributed to assignments relating to rocket launch operations. They summarized Range Commander Council regulations, compiled marine mammal survey reports, proofread and completed digital training on the AAC Range Safety and Telemetry System (RSTS), prepared proposal presentations for future launch vehicles, and attended numerous staff and business development meetings. They also worked on their capstone design projects, based on real-world KLC scenarios. Sarah developed several concepts of operation for erecting a Taurus XL upper-stage in the Launch Service Structure, where she used AutoCAD to model the process, and confirmed them by taking on-site measurements of the tower. Carl developed a link-margin assessment tool to determine how well the RSTS communicates with a rocket in flight from KLC and other off-axis sites. Both projects help AAC with business development and operations.



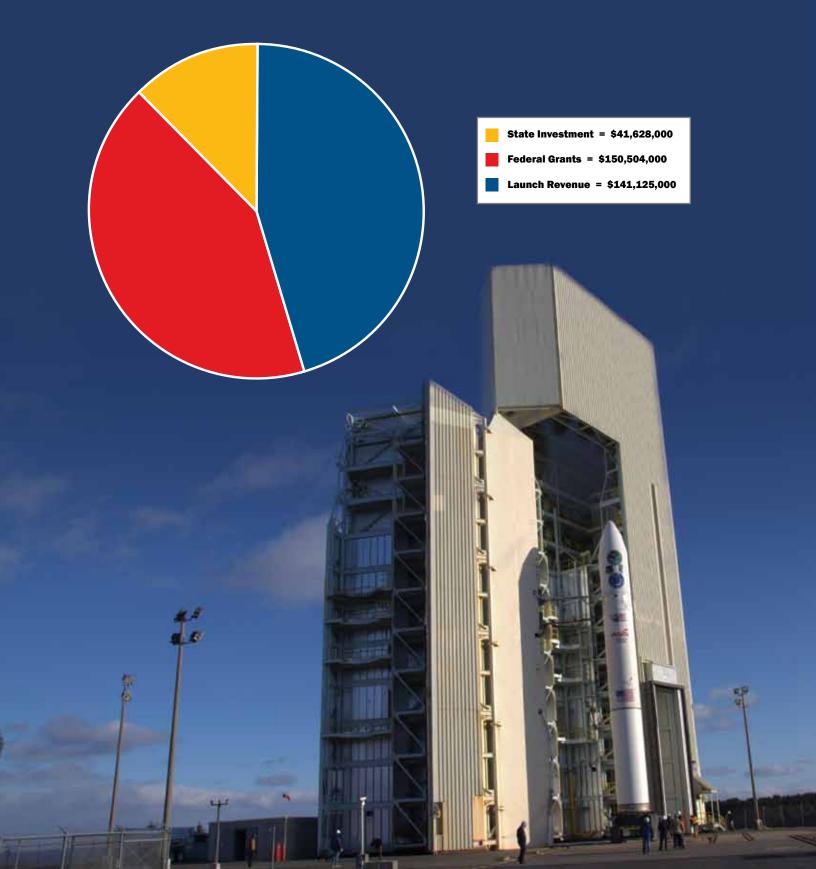
**Taurus XL Capstone Project** 



**Link Margin Capstone** 

## Our Financial Status

Leverage of State of Alaska Investment (Cumulative)



#### **OUR FINANCIAL STATUS**

#### Statement of Net Position

June 30, 2013 (With Comparative Amounts for 2012)

	2013	2012
Assets		
Current assets:		
Cash and investments	\$ 10,437,043	7,153,795
Accounts receivable	1,040,030	1,253,556
Unbilled receivables	141,431	167,806
Inventory	429,731	510,664
Total current assets	12,048,235	9,085,821
Noncurrent assets:		
Capital assets not being depreciated	1,083,830	581,353
Capital assets being depreciated/amortized, net	73,682,855	78,173,572
Total capital assets, net	74,766,685	78,754,925
Total assets	\$ 86,814,920	87,840,746
Liabilities and Net Assets		
Liabilities:		
Current liabilities:		
Accounts payable	403,442	332,034
Accrued leave and compensation	505,114	441,349
Total current liabilities	908,556	773,383
Noncurrent liabilities - deferred revenue	5,802,855	3,427,485
Total liabilities	6,711,411	4,200,868
Net assets:		
Net invested in capital assets	74,766,685	78,754,925
Unrestricted	5,336,824	4,884,953
Total net assets	80,103,509	83,639,878
Total liabilities and net assets	\$ 86,814,920	87,840,746

#### **OUR FINANCIAL STATUS**

## Statement of Revenues, Expenses, and Changes in Net Position Year Ended June 30, 2013 (With Comparative Amounts for 2012)

	2013	2012
Operating revenues	\$ 8,557,305	6,862,413
Operating expenses:		
Personnel services	5,477,436	5,347,577
Travel	264,637	334,741
Contractual services	2,232,337	3,027,593
Supplies	429,978	488,483
Equipment	173,322	17,584
Depreciation and amortization	4,681,292	4,490,791
Total operating expenses	13,259,002	13,706,769
Net operating loss	(4,701,697)	(6,844,356)
Nonoperating revenues (expenses):		
Interest income unrestricted	132,979	4,843
Loss from disposal of capital assets	_	(753,648)
PERS relief from State of Alaska	391,551	300,512
Cooperative agreement	11,827	196,018
Total nonoperating revenues (expenses)	536,357	(252,275)
Loss before capital contributions	(4,165,340)	(7,096,631)
Capital contributions	628,971	61,654
Change in net assets	(3,536,369)	(7,034,977)
Net assets - beginning of the year	83,639,878	90,674,855
Net assets - end of the year	\$ 80,103,509	83,639,878

#### **OUR FINANCIAL STATUS**

#### Statement of Cash Flows

Year Ended June 30, 2013 (With Comparative Amounts for 2012)

	2013	2012
Cash flows from operating activities:		
Receipts from contracts and State appropriations	\$ 8,797,206	8,040,496
Payments to suppliers	(2,947,933)	(4,134,551)
Payments to employees	(5,022,120)	(5,440,712)
Net cash (used) provided by operating activities	827,153	(1,534,767)
Cash flows from noncapital financing activities - cooperative agreement received	11,827	196,018
Cash flows from capital and related financing activities:		
Capital appropriation received	628,971	61,654
Purchase of capital assets	(693,052)	(408,636)
Increase (decrease) in deferred revenue	2,375,370	(249,103)
Net cash (used) provided by capital and related financing activities	2,311,289	(596,085)
Cash flows from investing activities - interest received	132,979	4,843
Net increase (decrease) in cash and cash equivalents	3,283,248	(1,929,991)
Cash and cash equivalents at beginning of year	7,153,795	9,083,786
Cash and cash equivalents at end of year	\$ 10,437,043	7,153,795
Reconciliation of operating loss to net cash (used) provided by operating activities:		
Operating loss	(4,701,697)	(6,844,356)
Adjustments to reconcile operating loss to net cash (used) provided by operating activities:		
Depreciation and amortization	4,681,292	4,490,791
Noncash expense - PERS relief	391,551	300,512
Decrease (increase) in accounts receivable	213,526	948,353
Decrease (increase) in unbilled receivables	26,375	229,730
Decrease (increase) in inventory	80,933	-
Increase (decrease) in accounts payable	71,408	(266,150)
Increase (decrease) in accrued expenses	63,765	(393,647)
Net cash (used) provided by operating activities	\$ 827,153	(1,534,767)

