

# AOS 81 Technology Plan

July 1, 2015 through June 30, 2018

Airline Community School  
Eddington Elementary School  
Holden Elementary School  
Holbrook Middle School

Created by the AOS 81 Technology Committee  
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## **I. Community and Parental Involvement**

- We have a Technology Committee responsible for long term planning and making recommendations to the School Board in all areas of technology for AOS 81. On the committee there are at least 1 School Board Member, 1 Community Member, 1 School Administrator, 1 Technology Coordinator and 3 Teachers (one from each school in the district). The Committee reports directly to the School Board every other month. That report is done in a public meeting. Each Principal reports out in a written report posted at [www.rsu63.org](http://www.rsu63.org) monthly on any technology initiatives currently being implemented at an individual school. The Technology Coordinator makes a similar monthly report with the emphasis on technology infrastructure and hardware. This will remain the same through the life of this plan.
- At the beginning of every school year, the Middle School holds a MLTI Parent night to inform parents and students about the MLTI program and laptop take-home policy and procedures outlined in policy IJND - MLTI MacBook Air Usage at home.
- Each school includes in their monthly newsletters sent home or posted on-line, any pertinent information involving technology in their school.
- Our district website is used as central point of communication for the general public and parents. This website contains information such as digital newsletters, upcoming events, teacher information, district policies, committee meeting dates and minutes. This resource also serves as a gateway for parents to access their child's grades, class schedules, and attendance records.
- Email is used for communication with parents and between district staff.
- We use the SchoolMessenger mass notification system to efficiently and effectively notify parents of school cancellations or other messages of urgency.

## **II. Vision**

- AOS 81 believes that technology is an essential component of 21<sup>st</sup> century learning and teaching. By using and incorporating technology into our curriculum and daily operations, student and teacher learning is enriched, data management is streamlined, and we become a more collaborative and efficient school system. Our vision is to continually assess and implement new and emerging technologies that prepare our students to be critical thinkers, productive, and responsible digital citizens. We will ensure the success of our technology program by providing knowledgeable and motivated staff, a supportive environment and valuable professional development opportunities.

## **III. Goals**

- Use technology based assessment tools to track student progress, inform instruction and increase student achievement
- Provide and promote ongoing technology professional development as well as collaborative technology education to district staff.
- Implement Google Apps for Education to provide new collaborative tools for teaching and learning
- Provide teachers and students with a reliable technology infrastructure and computing experience by implementing 5-6 year equipment replacement cycles.
- Provide students equitable and reliable access to technology by replacing aging grade 5-6 laptops at the middle school with tablet devices or chromebooks and expand K-4 Laptop deployment at the elementary schools by repurposing off lease MLTI units
- Develop and implement a K-8 technology curriculum that is aligned to the Common Core and new ISTE NET-S Standards  
Provide parents, teachers and administrators anytime-anywhere access to student information and assessment data.

## IV. Necessary Technology

- **Airline Community School (K-8)**

**Teachers/Admin:**

All Administrators, Special Education and classroom teachers have Macbook Air laptops. Laptops are provided using local funding through a lease agreement with the Maine Department of Education and Maine Technology Learning Initiative (MLTI).

Device Allocation	Number of Devices
Classroom Teachers	4
School Secretary	1
Special Education Teachers	1
Specialists	2
Administration	1

**Student Use:** Grade K-6 Macbook laptops are MLTI III (2009-2013) off-lease units purchased with local funding. Grade 7&8 Macbook Air laptops are provided by the Maine Department of Education and Maine Technology Learning Initiative (MLTI). The Maine Department of Education covers the cost up to standard solution. Local funding covers the cost difference between the standard and Apple alternate solution.

Device Allocation	Number of Devices
Gr K-6 Laptops	20
Gr 7 & 8 MLTI Laptops	10

**Student to Computer Ratio:**

Students (k-8)	Computers	Ratio
36	30	1.2

**Printers**

Student laptops print to the B&W laser printer located in the 6-8 classroom. Teacher, Administration and office staff computers print to a multifunction B&W copier as a default but have other options if needed.

Printers	Location	Use
HP 2200 (B&W Laser)	6-8 Classroom	Teacher/Students
Konica 7235 Copier/Printer	Teachers Room	Teacher/Staff
HP 6700D	Office	Admin/Staff
HP Officejet Pro 8000	Various Classrooms	Teachers

**Classroom Technology**

There are currently 5 LCD projectors and 3 interactive whiteboards available for teacher use.

**Internet:**

Airline Community School receives its Internet connectivity through a 10Mbps fiber connection provided by Network Maine and is funded through Federal E-rate and Network Maine.

**Network:**

Every classroom, Library and office has at least one wired 10/100/1000 Ethernet connection. In addition to these wired Ethernet connections, the building has complete 802.11n POE (Power over Ethernet) wireless coverage. All wired Ethernet connections and wireless access points are connected to managed 10/100/1000 MB switches, which are protected by a UPS/surge protection device.

A local server provides file and print services for staff and students as well as DHCP/DNS network services. This server is also protected by a UPS/surge protection device.

**Internet Filter/Firewall**

Internet content filtering for Airline Community School is provided by Network Maine. This web-based CIPA compliant filter is locally managed. There is also a local firewall appliance in place to provide additional filtering and to protect the internal network from external threats.

- **Eddington School (K-4)**

**Teachers/Admin:**

All Administrators, Special Education and classroom teachers have Macbook Air laptops. Laptops are provided using local funding through a lease agreement with the Maine Department of Education and Maine Technology Learning Initiative (MLTI).

Device Allocation	Number of Devices
Classroom Teachers	9
School Secretary	1
Special Education Teachers	3
Specialists	5
Administration	1

**Student Use:** There are 2 mobile laptop cart equipped with 25 MacBook laptops available for student use. These laptops are MLTI III (2009-2013) off-lease units purchased with local funding. Each K-4 classroom is equipped with a Dell netbook computer. There are 2 MacBook laptops and 4 iPads available in Special Education classrooms.

Device Allocation	Number of Devices
Mobile laptop Cart Laptops	50
Classroom Netbooks	10
Special Education Laptops	2
Special Education iPads	4

**Student to Computer Ratio:**

Students (k-4)	Computers	Ratio
138	62	2.2

**Library**

The Eddington School library is equipped with 2 desktop computers and 1 flat bed scanner. These desktop computers are available for teacher, student and community member use.

**Printers**

Student laptops print to the B&W laser printer located on the mobile laptop cart. Teacher, Administration and office staff computers print to a multifunction B&W copier as a default but have other options if needed.

Printers	Location	Use
Xerox 5655 (B&W Multifunction Copier)	Teacher's Work Room	Teacher/Staff
Xerox 522 (B&W Multifunction Copier)	Front Office	Teacher/Staff
HP Laserjet 500 Color M551	Library	Teacher/Staff
HP Laserjet 2300 (B&W Laser)	Library	Teacher/Staff
HP Laserjet 1320n (B&W Laser)	Principal's Office	Administration
HP Laserjet 1320nw (B&W Laser)	K-4 Laptop Cart	Student
HP Laserjet Pro 400 (B & W Laser)	K-4 Laptop Cart	Student

**Classroom Technology**

Every classroom has a ceiling mounted LCD projector and interactive whiteboard available for teacher use.

LCD Projectors	10
Interactive Whiteboards	10

**Internet:**

Eddington School receives its Internet connectivity through a 20Mbps fiber connection provided by Network Maine and is funded through Federal E-rate and Network Maine.

**Network:**

Every classroom, Library and office has at least one wired 10/100/1000 Ethernet connection. In addition to these wired Ethernet connections, the building has complete 802.11n POE (Power over Ethernet) wireless coverage. All wired Ethernet connections and wireless access points are connected to managed 10/100/1000 MB switches, which are protected by a UPS/surge protection device.

A local server provides file and print services for staff and students as well as DHCP/DNS network services. This server is also protected by a UPS/surge protection device.

**Internet Filter/Firewall**

Internet content filtering for Eddington School is provided by Network Maine. This web-based CIPA compliant filter is locally managed. There is also a local firewall appliance in place to provide additional filtering and to protect the internal network from external threats.

- **Holden School (K-4)**

**Teachers/Admin:**

All Administrators, Special Education and classroom teachers have Macbook Air laptops. Laptops are provided using local funding through a lease agreement with the Maine Department of Education and Maine Technology Learning Initiative (MLTI).

Device Allocation	Number of Devices
Classroom Teachers	10
School Secretary	1
Special Education Teachers	4
Specialists	1
Administration	1

**Student Use:** There are 2 mobile laptop cart equipped with 25 MacBook laptops available for student use. These laptops are MLTI III (2009-2013) off-lease units purchased with local funding. Each K-4 classroom is equipped with a Dell netbook computer. There are 4 MacBook laptops and 4 iPads available in Special Education classrooms.

Device Allocation	Number of Devices
Mobile laptop Cart Laptops	50
Classroom Netbooks	10
Special Education Laptops	4
Special Education iPads	4

**Student to Computer Ratio:**

Students (k-4)	Computers	Ratio
147	64	2.3

**Library**

The Holden School library is equipped with 2 desktop computers and 1 flat bed scanner. These desktop computers are available for teacher, student and community member use.

**Printers**

Student laptops print to the B&W laser printer located on the mobile laptop cart. Teacher, Administration and office staff computers print to a multifunction B&W copier as a default but have other options if needed.

Printers	Location	Use
Xerox 5655 (B&W Multifunction Copier)	Teacher's Work Room	Teacher/Staff
HP Laserjet 500 Color M551	Library	Teacher/Staff
HP Laserjet 2300 (B&W Laser)	Library	Teacher/Staff
HP Laserjet 1320n (B&W Laser)	Front Office	Administration
HP Laserjet 1320nw (B&W Laser)	K-4 Laptop Cart	Student
HP Laserjet Pro 400 (B & W Laser)	K-4 Laptop Cart	Student

**Classroom Technology**

Every classroom has a ceiling mounted LCD projector and interactive whiteboard available for teacher use.

LCD Projectors	12
Interactive Whiteboards	12

**Internet:**

Holden School receives its Internet connectivity through a 10Mbps fiber connection provided by Network Maine and is funded through Federal E-rate and Network Maine.

**Network:**

Every classroom, Library and office has at least one wired 10/100/1000 Ethernet connection. In addition to these wired Ethernet connections, the building has complete 802.11n POE (Power over Ethernet) wireless coverage. All wired Ethernet connections and wireless access points are connected to managed 10/100/1000 MB switches, which are protected by a UPS/surge protection device.

A local server provides file and print services for staff and students as well as DHCP/DNS network services. This server is also protected by a UPS/surge protection device.

**Internet Filter/Firewall**

Internet content filtering for Holden School is provided by Network Maine. This web-based CIPA compliant filter is locally managed. There is also a local firewall appliance in place to provide additional filtering and to protect the internal network from external threats.

• **Holbrook School (5-8)**

**Teachers/Admin:**

All Administrators, Special Education and classroom teachers have Macbook Air laptops. Laptops are provided using local funding through a lease agreement with the Maine Department of Education and Maine Technology Learning Initiative (MLTI).

Device Allocation	Number of Devices
Classroom Teachers	16
Specialists	5
Special Education Teachers	3
Librarian	1
School Secretary	1
Administration	2

**Student Use:** All 5<sup>th</sup> and 6<sup>th</sup> grade laptops are MLTI III (2009-2013) off-lease units purchased with local funding. Grade 7&8 Macbook Air laptops are provided by the Maine Department of Education and Maine Technology Learning Initiative (MLTI). The Maine Department of Education covers the cost up to standard solution. Local funding covers the cost difference between the standard and Apple alternate solution. There are 13 MacBook laptops and 8 iPads available in Special Education classrooms.

Device Allocation	Number of Devices
Gr 5 & 6 Classroom Laptops	153
Gr 7 & 8 MLTI Laptops	116
Special Education Laptops	13
Special Education iPads	8

**Student to Computer Ratio:**

Students (5-8)	Computers	Ratio
269	272	1.0

**Library**

The Holbrook School library is equipped with 5 desktop computers and 2 flat bed scanners. These desktop computers are available for teacher, student and community member use.

**Printers**

5<sup>th</sup> grade student laptops print to the printer located in their homeroom. 6<sup>th</sup> grade student laptops print to the printer located in the grade 6 hallway or the library printer if needed. Grade 7 & 8 laptops print to their respective homeroom printers by default. There is also the choice of the library printer or the French room printer.

Teacher, Administration and office staff computers print to a multifunction B&W copier as a default but have other options if needed.

Printers	Location	Use
HP Laserjet 2100tn	Principal's Office	Administration
Xerox WorkCentre 5675	Teacher's Work Room	Teacher/Staff
HP Laserjet 4000	Speech	Teacher
Xerox ColorQube 8570N	Teacher's Work Room	Teacher/Staff
HP Laserjet 4100	Teacher's Work Room	Teacher/Staff
HP Laserjet P2055dn	Tech Coord Office	Administration
HP Laserjet 2100tn	Music Classroom	Teacher
Xerox ColorQube 8570N	Art Classroom	Teacher
HP Laserjet 1320nw	Grade 7 Classroom	Student/Teacher
HP Laserjet 1320nw	Grade 7 Classroom	Student/Teacher
HP Laserjet 1320nw	Grade 7 Classroom	Student/Teacher
HP Laserjet 1320nw	Grade 7 Classroom	Student/Teacher
HP Laserjet 1320nw	Grade 8 Classroom	Student/Teacher
HP Laserjet 1320nw	Grade 8 Classroom	Student/Teacher
HP Laserjet 1320nw	Grade 8 Classroom	Student/Teacher
HP Laserjet 1320nw	Grade 8 Classroom	Student/Teacher
HP Laserjet 1320nw	Grade 8 Classroom	Student/Teacher
HP Laserjet 1320n	French Room	Student/Teacher
LaserJet 2420dn	Library	Student/Teacher
HP Laserjet 2100tn	Special ED Classroom	Student/Teacher
HP Laserjet 1320nw	Grade 5 Classroom	Student/Teacher
HP Laserjet Pro 400	Grade 5 Classroom	Student/Teacher
HP Laserjet 1320nw	Grade 6 Hall	Student/Teacher

**Classroom Technology**

Every classroom has a ceiling mounted LCD projector and interactive whiteboard available for teacher use.

LCD Projectors	21
Interactive Whiteboards	21

**Internet:**

Holbrook School receives its Internet connectivity through a 40Mbps fiber connection provided by Network Maine and is funded through Federal E-rate and Network Maine.

**Network:**

Every classroom, Library and office has at least one wired 10/100/1000 Ethernet connection. In addition to these wired Ethernet connections, the building has complete 802.11n POE (Power over Ethernet) wireless coverage. All wired Ethernet connections and wireless access points are connected to managed 10/100/1000 MB switches, which are protected by a UPS/surge protection device.

A local server provides file and print services for staff and students as well as DHCP/DNS network services. This server is also protected by a UPS/surge protection device.

**Internet Filter/Firewall**

Internet content filtering for Holbrook School is provided by Network Maine. This web-based CIPA compliant filter is locally managed. There is also a local firewall appliance in place to provide additional filtering and to protect the internal network from external threats.

- **Special Services Office**

**Staff:**

All Special Service staff have Windows Desktop computers.

Device Allocation	Number of Devices
Special Services Director	4
Special Services Secretary	1
IEP Coordinator/District Evaluator	2

**Printers**

Special Services office staff computers print to a Savin multifunction B&W copier as a default but have the choice of a HP Color Laserjet if needed.

**Network/Internet**

The Special Services office is located at Holbrook School and uses the network resources and Internet services provided by the Holbrook School network infrastructure.

- **Central Office**

**Staff:**

All Central Office staff have iMac Desktop computers.

Device Allocation	Number of Devices
Business Manger	1
Transportation/Operations	1
Bookkeeper	1
Secretary	1

**Printers**

Central office staff computers print to a Xerox multifunction B&W copier as a default but have the choice of their local printer if needed.

Printers	Location	Use
Xerox 5638 (B&W Multifunction Copier)	Work Room	All CO Staff
HP Laserjet 600 (B&W Laser)	Business Mgr. Office	Business Manager
HP Laserjet 1320n (B&W Laser)	Secretary Desk	Secretary
Epson Stylus C120 (Color Inkjet)	Transportation Office	Transportation Mgr.

**Network/Internet**

The Central Office is located at Holbrook School and uses the network resources and Internet services provided by the Holbrook School network infrastructure.

- **District Servers and Software Services**

These servers provide district wide services to the Administration, Teachers and Students of AOS 81.

- 1 File and print/Nutrikids Server
- 1 Follet Destiny Library Automation Server
- 1 Financial Data Server (ADS Profund)
- 1 Student Information Server
- 1 Moodle Course Management/FamilyLink Parent Portal Server

## V. Collaboration with Adult Literacy Service Providers

- AOS 81 will collaborate with area literacy service providers as needs are identified. Our first task is to complete a community survey of the wants and needs of our adult population. Once the needs have been identified, evaluate possible options for implementation.

## VI. Strategies for Improving Academic Achievement and Teacher Effectiveness.

- Use web-based instruction, practice, assessment and reporting tools to identify student strengths and weaknesses.
- Use annual technology surveys to identify staff technology needs and design professional development opportunities based on the survey results.
- The district technology coordinator will continue to provide integration help and onsite/remote support and for all staff members in the district.
- Develop a comprehensive technology curriculum K-8.
- Implement an online Teacher/Administrator observation and evaluation system.



- Encourage all staff to attend PREP, ACTEM and MLTI technology training opportunities whether onsite or through online webinars.
- Identify building level technology experts and recognize them as valuable resources for peers.

## VII. Integration of Technology with Curricula, Instruction, and Assessment

- We will continue the use of, Raz-Kidz, Lexia, and Accelerated Reader. These programs will be used to monitor and assess student progress.
- NWEA and MEA/SBAC assessments will be used as an assessment tool for Math, Reading, Science and language usage.
- Data from standardized and localized assessments is imported into our SIS system for easy reference by teachers and administrators.
- Teachers will integrate Microsoft Office and Google Docs through projects, communication and assignments as appropriate.
- Content management software (i.e. Moodle, Blackboard) will be used to enhance delivery of educational content as applicable.

## VIII. Technology Type and Costs, and Coordination with Funding Resources

Goals	Activities	Hardware/Software	Estimate Costs	Funding Source
Implement Google Apps for Education to provide new collaborative tools for teaching and learning	GAFE will replace FirstClass	Gmail, Google Drive, Calendar, Classroom	\$0	
Replace aging grade K-4 elementary laptop cart MacBooks	Establish a 5-6 year equipment replacement cycle	50 – laptops, chromebook, or tablet devices	\$15,000.00- \$25,000.00 Purchase through leasing	Local
Expand K-4 Laptop deployment at the elementary schools	Additional devices are needed to make the most of the online learning initiatives and web-based assessments	50 – laptops, chromebook, or tablet devices 2 Mobile laptop or tablet carts	\$15,000.00- \$25,000.00 Purchase through leasing	Local
Provide 1:1 computing to Grades 5-6	Purchase our 7 <sup>th</sup> & 8 <sup>th</sup> grade MLTI Deployment (4 year old Macbook Air laptops) or New Chromebooks	160 – MacBook Air Laptop Computers or Chromebooks	9,000.00- \$40,000.00 Purchase through leasing	Local
Provide teachers, staff and administration with a reliable and current computing device	Establish a 4-5 year equipment replacement cycle	52- Laptops	\$60,000.00 Purchase through leasing	Local

Maintain necessary web-based instruction, practice and assessment tools		Raz-Kids Study Island Lexia Accelerated Reader NWEA	\$10,000.00	Local
Maintain district servers, software and web hosting contracts.		Servers: SchoolMaster, ADS, Moodle Webhosting: District website Software: SchoolMaster Nutrikids Ultrakey ADS Terminal Server	\$26,000.00	Local
Maintain district-wide internet access for all students and staff	Continue internet access through Network Maine system	50 MB T1 Circuit	\$0	MSLN
Provide and promote ongoing technology professional development as well as collaborative technology education to district staff.	District Training will be offered on early release days, workshop days.	N/A	\$4,000.00	Budget

## IX. Supporting Resources

- Technology Service and Support
  - The District Technology Coordinator provides support, maintenance, and service for the many technology systems and software in use by students and staff.
- Other Resources
  - The district utilizes many software and web-based solutions to increase student achievement and to promote productivity, collaboration, integration, and communication.

Accelerated Reader	Marvel	Destiny Library Automation System
NWEA	On-line learning resources	Lexia Reading
SchoolMaster SIS	ADS Profund	Google Docs
UltraKey Typing	TuxPaint	TuxMath
Promethean Activexpression	MLTI Software Suite (7 <sup>th</sup> & 8 <sup>th</sup> grade laptops)	Edline
Promethean ActivInspire	Raz-Kids	
Microsoft Office	Boardmaker	

## **X. Steps to Increase Accessibility**

- AOS 81 provides all teachers and content area specialist with the same MLTI Apple MacBook Air laptop and software. This commonality approach provides a huge benefit in training and professional development opportunities.
- We purchased our last 2010-2013 MLTI MacBook deployment and used them in grade 5 & 6 at the Holbrook School for a 1:1 environment. Our plan to use this same model when the current MLTI MacBook Air laptops become available in 2017.
- We have four mobile laptop carts in the district with 25 laptops in each cart. Each elementary school will have two carts each.
- We have placed a netbook computer in each K-4 classroom so that teachers can create technology-learning centers.
- The technology coordinator will continue to identify and advocate for resources as needed and requested.

## **XI. Promotion of Various Curricula and Teaching Strategies that Integrate Technology**

- Staff meetings at each building will be showcases for technology initiatives, ideas, brainstorm, etc.
- The District will continue to offer professional development on workshop days, after school, and during the summer.
- Instructional Leaders at each school (which includes principals and the chairs of various curriculum committees) will ensure that the instruction and general curriculum is based on current research of best practices.
- A variety of web-base programs provided to each student and staff member to assist in the integration of technology in the learning environment.

## **XII. Professional Development**

- We will create a yearly technology assessment survey that guides our professional development needs.
- We will take advantage of the MLTI workshops offered regularly in our area.
- We will provide on going training using our district experts.
- We will encourage staff to attend the Middle School Summer Institute at UM, UTC and the Technology Courses offered in Belfast each summer.
- The principals will set aside time on Early Release Days, Workshop Days, and during Staff meetings to help teachers in the area of technology.

## **XIII. Innovative Delivery Strategies**

The district uses a variety of innovative technologies and strategies to support the integration of technology into the curriculum. Some of the innovative technologies we use are:

- Classroom resources that are available online (streaming video)
- Classroom websites and homework/class calendars
- Teachers and Students will use Gmail and Google Apps to distribute and submit assignments electronically
- Interactive whiteboards and student response systems
- Online courses and content delivered through the district's Moodle server
- Mobile laptop carts that are available for teachers (K-4) to roll into their classroom and access online resources
- Classroom LCD projectors
- Software video conferencing tools

#### **XIV. Accountability Measures**

- Assessment tools (NWEA and MEA/SBAC) are used and student scores are analyzed and evaluated yearly to inform instruction.
- Data gathered through informal feedback, observations, and surveys are used to evaluate the technology plan, align professional development offerings, improve instruction and establish funding priorities.
- The Technology Committee will review progress made toward the plan listed above on an annual basis and report back to the full board.
- Assessment of teacher skills is needed to determine individual needs and to offer solutions for professional development at the individual, school, and district level. Teacher and student surveys will be taken each year to assess needs and effectiveness. Teacher feedback will also be requested after each training to see that we are meeting the needs of the staff. MLTI conducts yearly surveys of teachers and students as well.