

**ECONOMIC FEASIBILITY
OF TAWAS BAY AS A
CRUISE SHIP PORT OF CALL
AND
PORT CITY GUIDE**

December 2010

Port of Call Committee
a committee composed of committed volunteers,
Develop Iosco, Incorporated,
and
The City of East Tawas

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Port-of-Call Project
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*** IMPLAN: Impact analysis for PLANning**

Port of Call Feasibility Study: Acknowledgments

Port of Call Report Acknowledgments

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David Wentworth
Develop Iosco, Inc
Port of Call Project

Port of Call Feasibility Study: Executive Summary

Introduction: This document is part of a dialog and planning process designed to determine the feasibility of cruise ship use of Tawas Bay and the East Tawas State Dock as a port-of-call. Questions, comments and suggestions will be a welcome addition to the process.

- I. Executive Summary: Cruise activity in the Tawas Bay area is feasible and would be an attractive addition to the areas economy.
 - A. Industry
 1. The cruise industry is big and is weathering the current economic storm. Large firms better than small firms.
 2. The industry is characterized by flexibility in pricing, cruise length, and ports-of-call. (Ports-of-call need to be aware of this flexibility.)
 3. The Great Lakes portion of the industry is surviving. A small ship line is increasing its presence and a big ship line is returning.
 4. The economic impact on the region is significant.
 5. Great Lakes cruise ships are significantly smaller than the ships on other routes.
 6. Cruise activity can extend the tourism seasons.
 - B. East Tawas is an attractive port-of-call.
 1. It is close to Lake Huron's commercial ship transit courses and "overnight" in time-distance from most Lake Huron ports.
 2. The Tawas Bay area now contains the infrastructure elements needed to support cruise ships. Docking infrastructure improvements would make the Bay more attractive to cruise lines.
 3. The Greater Iosco area contains a wide array of very attractive cruise tourist destinations, many of which are of national or global quality.
 - C. Economic Impact:
 1. Cruise activity has had a positive impact on our national and our state economy.

Port of Call Feasibility Study: Executive Summary

2. Existing Great Lakes Cruise activity has a positive economic impact on the Great Lakes Region. In addition, cruise passengers
 - a. constitute a new market
 - b. are usually first time visitors, and
 - c. one third plan to return to ports-of-call within 2 years
 3. All currently active Great Lakes cruise ships can use Tawas Bay as a port now by using tenders to bring passengers to the dock.
 4. Economic models (IMPLAN) for the county and for the region show that
 - a. +/- 68% of Cruise passenger spending is captured by the local economy
 - b. the captured 68% when spent and re-spent yields 131% more in total output/sales of which about 30% becomes personal/employment income
 - c. a single visit has a positive impact, regularly scheduled repeating visits can have a very significant impact.
 - d. a marketing objective should be to become a port with regularly scheduled repeating visits
- D. A series of relatively small and achievable steps is needed to bring cruise ships to Tawas Bay and East Tawas.
1. Marketing Tawas Bay as a port-of-call to cruise lines
 - a. establish East Tawas as a backup port for existing routes and ports
 - b. establish a collation of groups and ports to create a spring migration bird cruise. (East Tawas area is a world class destination.)
 - c. market Tawas Bay as a port of call to currently active cruise lines
 - d. recruit new small-ship cruise lines to the area
 - e. build a cruise route concept with nearby ports such as Alpena and Bay City
 - f. support development of state or regional cruise marketing effort
 2. Work with the Michigan Department of Natural Resources and Environment (MDNRE)
 - a. monitor and support the East Tawas State Dock Commercial Dock

II. The Cruise Industry

A. The Industry Overall

1. The US cruise Industry is viable.

a. **The industry is growing:** Table 1 below shows that the industry has grown over the last six years.

(1.) Industry gross revenue grew nearly 7% over the last six years, falling short of the Gross Domestic Product (GDP) growth rate of 19%. 2009 industry revenues, however, fell 11.4% reflecting economic conditions.

(2.) Industry passenger growth rate, however, exceeded the growth rate of GDP and is forecast to increase again in 2010. Unlike industry gross revenue, which declined, passengers carried increased 3.9% in 2009.

(a.) Items 1 and 2 above indicate “pricing” issues are the source of the revenue decline, not the more difficult issues of demand. Pricing/discounting kept passenger quantity up by following the demand curve.

(b.) Items 1 and 2 above also demonstrate the industry’s flexibility in pricing and redeploying its fleet. (1)

b. **The Industry is large, \$22,060,000,000 in 2009, equaling nearly 2% of GDP.**

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TABLE 1

Cruise Industry Size and Growth

Compared to GDP and Prior Year

Year	GDP Current \$ (\$ billions)	foot note	GDP percent change based on current dollars	foot note	Gross Revenue (\$ Billions)	foot note	Worldwide Passengers (000's) (7)	Gross Revenue % change	Passenger % Change (8)
2000	\$9,951.5	(2)	6.4%	(4)	na	---	7,214	---	13.8%
2001	\$10,286.2	(2)	3.4%	(4)	na	---	7,499	---	3.9%
2002	\$10,642.3	(2)	3.5%	(4)	na	---	8,648	---	15.3%
2003	\$11,142.1	(2)	4.7%	(4)	na	---	9,526	---	10.2%
2004	\$11,867.8	(2)	6.5%	(4)	na	---	10,460	7.7%	9.8%
2005	\$12,638.4	(2)	6.5%	(4)	\$19.17	(7)	11,180	13.8%	6.9%
2006	\$13,398.9	(2)	6.0%	(4)	\$20.64	(7)	12,006	7.7%	7.4%
2007	\$14,061.8	(2)	4.9%	(4)	\$22.82	(7)	12,563	10.8%	4.6%
2008	\$14,369.1	(2)	2.2%	(4)	\$24.88	(7)	13,005	9.0%	3.5%
2009	\$14,119.0	(2)	-1.7%	(4)	\$22.06	(7)	13,442	-11.4%	3.4%
2010	\$14,799.6	(3)	4.8%	(5)	na		14,300	na	6.4%
2004 to 2009	Growth %		19.0%					6.9%	28.5%

2009 GDP = \$14,119,000,000,000

Industry 2009 Gross Revenues = \$22,060,000,000

- c. **The industry is reasonably healthy.** Firms making up the industry appear to be weathering the recession and trough phases of the business cycle and appear to be healthy. Table 2 below lists the membership of the Cruise Line International Association. Also shown are members' passenger capacity, number of ships, average capacity, and for listed (publically-traded stock shares) carriers, their return on equity, price earnings ratios, and analyst ratings.

Port of Call Feasibility Study: Section II: Industry Health

- (1.) Listed companies account for almost 70% of passenger capacity and 50% of ships.
 - (a.) All had positive return on equity. (have positive earnings).
 - (b.) All had positive price/earnings ratios.
 - (c.) All have analyst ratings of “hold” or “buy” (are viewed as investments with value).

- (2.) Some, however, are having difficulty.
 - (a.) Crystal Cruises is a 3-ship segment of an 803-ship Japanese company, Nippon Yusen Kasima Line (NYK). The company posted losses in 2009. Cruise activities make up a very small segment of total operations. Other activities include container transport, car transport, logistics, and terminal/harbor activities. (9)
 - (b.) Cruise West ceased operations in September 2010. CEO Dick West stated, “After 64 years, our family business has succumbed to the global economy.” One of the Cruise West ships had been routed to the Great Lakes in 2011, but has been purchased by another company. (10)
 - (c.) Pearl Seas Cruises has refused delivery on the new ship, Pearl Mist, because of shakedown trial failures. This casts doubt on the Pearl Mist making its Great Lakes cruise schedule in 2011. It should be pointed out that newspapers in the Canadian Maritimes,

Port of Call Feasibility Study: Section II: Industry Health

where the ship was build, report that the underlying reason for refusal was an inability to pay for the ship on the part of the line. (11a & 11b)

Develop Isosco, Inc/City of East Tawas Port of Call Project: Table 2 Cruise Line International Association (CLIA) Members and Known Strength							
Exchange Symbol	Cruise Line Member (12)	No. of Lowerers	No. of Ships	Avg Ship capacity (13)	Return On Equity	Price/Earnings Ratio	Analyst Rating
AINV (14)	Oceania Cruises, Inc.	2,052	3	684			
AINV (14)	Regent Seven Seas Cruises	2,422	5	484	5.8%	6.20	hold
CCL (15)	Carnival Cruise Lines	54,602	22	2,482			
CCL (15)	Holland America Line	21,335	14	1,524			
CCL (15)	Princess Cruises	37,220	17	2,189	8.2%	17.10	moderate buy
DIS (16)	Disney Cruise Line	3,508	2	1,754	11.1%	16.46	hold
RCL (17)	Azamara	1,420	2	710			
RCL (17)	Royal Caribbean International	56,488	21	2,690			
RCL (17)	Celebrity Cruises	17,218	9	1,913	5.3%	17.14	Moderate buy
NYK (18)	AMA Waterways	1,386	10	139			
	American Cruise Line	302	4	76			
	Avalon Waterways	1,546	10	155			
	Costa Cruise Lines	28,525	14	2,038			
	Crystal Cruises	1,992	2	996			
	Cunard Line, LTD	4,620	2	2,310			
	Hurtigruten	5,923	13	456			
	MSC Cruises USA	21,808	10	2,181			
	Norwegian Cruise Line	22,138	10	2,214			
	Paul Gauguin Cruises	0	0	na			
	Pearl Seas Cruises (b)	210	1	210			
	Seabourn Cruise Line	1,074	4	269			
	Seadream Yacht Club	220	2	110			
	Silversea Cruises	2,028	6	338			
	Uniworld	1,640	12	137			
Windstar Cruises	608	3	203				
	TOTAL MEMBERSHIP	290,285	198	1,466			
	Total Exchange Listed	196,265	95	2,066			
	Percent of Capacity	67.6%	48.0%	140.9%			

2. The Great Lakes Cruise Industry is viable.

Port of Call Feasibility Study: Section II: Industry Health

- a. There was substantial cruise activity on the Great Lakes. See Table 3 below.

Port of Call Project							
Active Great Lakes Watershed Cruise Lines							
Table 3							
Summary of Active Lines							
2010							
ACTIVITY SUMMARY							
Cruise Line	Ships	Cruises	Cruise Nights	Great Lakes Nights	Passenger Capacity	Passenger Nights @ capacity	Cruise Days
ACCCL / Blount Adventures	2	12	120	69	1,048	6,346	132
Travel Dynamics International	1	12	91	74	1,200	7,400	102
Pearl Seas Cruises	0	0	0	0	0	0	0
Hapag Lloyd	0	0	0	0	0	0	0
TOTALS	3	24	211	143	2,204	13,746	234
2011							
ACTIVITY SUMMARY							
Cruise Line	Ships	Cruises	Cruise Nights	Great Lakes Nights	Passenger Capacity	Passenger Nights @ capacity	Cruise Days
ACCCL / Blount Adventures	2	18	184	109	1,532	9,512	202
Travel Dynamics International	0	0	0	0	0	0	0
Pearl Seas Cruises (9)	1	6	50	30	1,260	6,300	56
Hapag Lloyd	1	4	26	26	1,680	11,760	62
TOTALS	4	28	260	165	7,552	27,572	320
Change	+1	+4	+49	+22	+5,348	+13,826	+86
Change Percent	33.3%	16.7%	+23.2	15.4%	242.6%	100.6%	36.8%

Weighted average ship capacity: '10, 127 passengers: '11, 199 passengers or 13.6% of CLIA average capacity. . For details and references, see appendix 1

- (1.) Three (3) ships worked the lakes in 2010 and four (4) have plans for lake activity in 2011
- (2.) Other indicators show an increase in lake cruise activity
 - (a) four more cruises (+16.7 %)
 - (b) forty-nine more cruise nights (+23.2 %)
 - (c) capacity increase of 5,348 passengers (+242.6 %)

- (d) increase of 13,826 passenger cruise nights on the lakes (+100.8 %)
 - (3.) The year to year change is attributable to several factors
 - the mix of vessels
 - the mix of cruises
 - (4.) The year-to-year change demonstrates the industry's flexibility. Re-deploying vessels to meet changes in demand. It is relatively easy to change routes and ports of call.
- b. Magnitude of activity: Economic Impact
- (1.) Using the Michigan State University Michigan Tourism Impact Calculator (19) and three (3) simplifying assumptions, a rough measure of economic impact can be calculated for the Great Lakes region. (20)
 - (2.) Simplifying assumptions:
 - (a.) Great Lakes nights from Table 3 are assumed to be equal to the number of port visits conducted by cruise ships. Shore spending by passengers and crews on day-visits is the basis for this calculation.
 - (b.) The MSU Tourism IMPLAN model is representative of all Great Lakes region states and provinces.
 - (c.) In-port spending is assumed to be equal to the average shore spending per ship call calculated in Table IV - 1 of Section IV below. This average is \$21,036.90 or \$108.16 per visitor.
 - (3.) Model Results: Paraphrasing model language

Port of Call Feasibility Study: Section II: Industry Health

- (a.) The average spending of passengers, crew and lines for on- shore visits is \$21, 036.90 per port call for 165 visits.

- (b.) Direct Impact: This results in \$3,471,089 total spending. Of this spending, 72% was captured by the local economy. This yielded \$2,482,978 in direct sales to tourism-related businesses. These sales resulted in \$986,208 in direct personal income, \$1,497,546 direct value added and supported 68 direct jobs.

- (c.) Each direct impact sales dollar yielded \$1.595 in total sales effects including both direct and induced effects. Coupled with the direct effects, the indirect and induced effects resulted in:
 - (1.) \$3,961,393 in total sales

 - (2.) \$1,506,913 in total personal income

 - (3.) \$2,832,201 in total value added

 - (4.) 87 jobs supported (required to produce stated output)

C. Summary:

- 1. The industry overall appears to be sound.

- 2. Larger firms are weathering the economic storm better than smaller firms.

- 3. Great Lakes Cruises have a significant economic impact on the region.

- 4. Great Lakes Cruise Lines are flexible and adjust their schedules

Port of Call Feasibility Study: Section II: Industry Health

with little notice.

5. The Great Lakes are a saleable destination for cruise passengers.
6. Great Lakes cruise ships are significantly smaller than the industry in general.

Notes:

1. Executive Summary; The Contribution of the North American Cruise Industry to the U.S. Economy in 2008; Business Research & Economic Advisors; Cruise Lines International Association; June 2009; Pages 1, 2 and 3
2. National Income Accounts; Bureau of Economic Analysis; Current-Dollar and “real” GDP; <http://www.bea.gov/national/index.htm>
3. U.S. Gross Domestic Product GDP Forecast; The Financial Forecast Center; 9/13/2010; <http://www.forecasts.org/gdp.htm>
4. National Income Accounts; Bureau of Economic Analysis; Gross Domestic Product Percent change from preceding period; 08/27/2010; <http://www.bea.gov/national/index.htm>
5. Calculation: (2010 estimated GDP minus 2009 GDP) divided by 2009 GDP and then times 100 to convert to percentage.
6. Not applicable: edit, drop.
7. The Overview - 2010 CLIA Cruise Market Overview: 2010 Cruise Lines International Association: Annual Passenger Growth: Page 3
8. Calculation: (current year - last year) divided by last year then times 100 yielding growth percent.
9. Cruise Service NYK Line: 10/5/2010: <http://www.nyk.com/english/service/cruise/>
10. Travel Weekly: Cruise West Ceases Operations: Jainchill, J: 9/19/2010: <http://travelweekly.com/print.aspx?id=220776>
- 11a. Cruise Industry News: Pearl Mist Rejected: 10/02/2010: <http://www.cruiseindustrynews.com/cruise-news/4549-10210-pearl-mist-rejected.html>
- 11b. Shipfax-shipping news from Halifax: 10/22/2010: <http://shipfax.blogspot.com/2009/07/more-trouble-for-pearl-mist.html>
12. The Overview - 2010 CLIA Cruise Market Overview: 2010 Cruise Lines

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- International Association: Annual Passenger Growth: Page 12
13. Calculation: for each line, the number of lower berths divided by the number of ships
 14. AINV Key Statistics and Analysts Opinions| Appollo Investment Corporation Stock: <http://finance.yahoo.com/q/ks?s=ainv>
 15. Carnival Corporation Common Stock: <http://finance.yahoo.com/q?s=CCL>
 16. DIS Profile | Walt Disney Company (the) Commo Stock - Yahoo Finance: 9/13/2010: <http://finance.yahoo.com/q/pr?s=DIS>
 17. RCL Key Statistics | Royal Caribbean Cruises Ltd. Co Stock - Yahoo! Finance: <http://finance.yahoo.com/qks?s=RCL>
 18. Cruise Service NYK Line: 10/5/2010:
<http://www.nyk.com/english/service/cruise/>
 19. <https://www.msu.edu/course/prr/840/econimpact/michigan/ecimpest.html>
 20. The Great Lakes Region is defined here as the waters up stream from the juncture of the St. Lawrence River and Lake Ontario. Included are Lakes Ontario, Erie, St Claire, Huron, Michigan, Superior and their connecting waterways.

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- International Association: Annual Passenger Growth: Page 12
13. Calculation: for each line, the number of lower berths divided by the number of ships
 14. AINV Key Statistics and Analysts Opinions| Appollo Investment Corporation Stock: <http://finance.yahoo.com/q/ks?s=ainv>
 15. Carnival Corporation Common Stock: <http://finance.yahoo.com/q?s=CCL>
 16. DIS Profile | Walt Disney Company (the) Commo Stock - Yahoo Finance: 9/13/2010: <http://finance.yahoo.com/q/pr?s=DIS>
 17. RCL Key Statistics | Royal Caribbean Cruises Ltd. Co Stock - Yahoo! Finance: <http://finance.yahoo.com/qks?s=RCL>
 18. Cruise Service NYK Line: 10/5/2010:
<http://www.nyk.com/english/service/cruise/>
 19. <https://www.msu.edu/course/prr/840/econimpact/michigan/ecimpest.html>
 20. The Great Lakes Region is defined here as the waters up stream from the juncture of the St. Lawrence River and Lake Ontario. Included are Lakes Ontario, Erie, St Claire, Huron, Michigan, Superior and their connecting waterways.

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III. Tawas Bay As A Cruise Ship Port of Call

A. Tawas Bay is easily accessible. The Proximity Table below (Table 3-1) below shows that:

Develop Iosco, Inc./City of East Tawas							
Port of Call Project							
TABLE 3-1							
Distance to Other Ports From East Tawas							
Port	State/ Province	Country	Lake	Statute Miles (1)	Nautical Miles (2)	Time @ 10 knots (3)	Time @ 15 knots (4)
Bay City	Michigan	USA	Huron	54	46.9	4.7	3.1
Alpena	Michigan	USA	Huron	89	77.3	7.7	5.2
Goderich	Ontario	Canada	Huron	95	82.6	8.3	5.5
Harbor Beach	Michigan	USA	Huron	102	88.6	8.9	5.9
Rogers City	Michigan	USA	Huron	110	95.6	9.6	6.4
Port Huron	Michigan	USA	Huron	119	103.4	10.3	6.9
Cheboygan	Michigan	USA	Huron	149	129.5	13.0	8.6
Mackinac Island	Michigan	USA	Huron	159	138.2	13.8	9.2
St. Ignas	Michigan	USA	Huron	163	141.6	14.2	9.4
Little Current	Ontario	Canada	Huron	175	152.1	15.2	10.1
Wierton	Ontario	Canada	Huron	181	157.3	15.7	10.5
Saulte Ste Marie	Michigan	USA	St Marys River	185	160.8	16.1	10.7
Owen Sound	Ontario	Canada	Huron	190	165.1	16.5	11.0
Parry Sound	Ontario	Canada	Huron	199	172.9	17.3	11.5
Midland	Ontario	Canada	Huron	218	189.4	18.9	12.6
				Conversion	Speed	Speed	
				Factor	In knots	in knots	
Statute miles times .86897 equals nautical miles				0.86897	10	15	
Distance From Upbound/Downbound Course							
	Statute Miles (1)		Nautical Miles	Time @ 10 knots	Time @ 15 knots		
Distance via East Tawas							
Port Huron to East Tawas	119						
East Tawas to Mackinac Island	159						
Total Distance via East Tawas	278		249.9	25.0	16.7		
Direct Distance							
Port Huron to Mackinac Island	243		218.4	21.8	14.6		
Incremental Distance	35		31.5	3.1	2.1		
Perpendicular distance from charted course boundaries							
Upbound (5)	33		29.7	3.0	2.0		
Downbound (6)	43		38.7	3.9	2.6		

1. Cruise-line planners prefer that port-to-port ship movement take place at night so that passengers can go ashore during the day.(7)

Port of Call Feasibility Study: Section III: Tawas Bay as a Cruise Port

2. All cruise ships traveling from Port Huron to Mackinac Island pass within 31.5 nautical miles of East Tawas. (3.1 hours at 10 knots and 2.1 hours at 15 knots)
3. East Tawas lies within 12 hours of most Lake Huron ports for ships traveling at 15 knots per hour.
4. East Tawas lies within 12 hours of five Lake Huron ports for ships traveling at 10 knots per hour.

B. Tawas Bay has the facilities required to support cruise activity

1. Tawas Bay, itself, provided a good anchorage for all cruise ships currently utilizing the Great Lakes. The U.S. Coast Pilot # 6 description of the Bay is quoted:

“Tawas Bay is a bight about 4 miles wide, enclosed on the E by Tawas Point and on the N and W by the curving mainland. It is an excellent harbor, affording secure anchorage at its head in all but SW winds. The 18-foot contour is about 1.3 miles off the NW shore of the bay decreasing to 0.5 mile off the N shore. Inside this contour, the depths shoal gradually toward shore. On the E side of the bay, a sand flat with depths of 1 foot extends 0.4 mile SW and about 0.7 mile W from Tawas Point. At the NW limit of the flat, marked by a buoy, the depths increase rapidly to 20 feet or more. A lighted buoy off the SW limit of the flat marks the entrance to Tawas Bay.”

2. The East Tawas State Dock, located at 44 degrees 16 minutes 35 seconds North, 83 degrees 29 minutes 05 seconds West is described by “Pure Michigan” as

“Marina: 44° 16' 35" N/83° 29'05" W. 113 seasonal. 30 seasonal slips and 110 transient slips. Radio channel: 9. Operating dates May 20 to September 25. Off-season location Tawas Point State Park with the off season phone: (989) 362-5041. Amenities include water, electricity (30- and 20-amp service), restrooms, showers, gasoline, diesel, pump-out, boat launch, pay phone, day-use dockage and playground/park. MiWiFi, wireless internet service, available for a fee. No cash is accepted for reservations. The East Tawas State Dock is a designated Michigan Clean” (9)

And by the *Coast Pilot* as

“The Michigan State Waterways Commission dock provides transient berths, gasoline, diesel fuel, water, electricity, sewage pump-out, launch ramp, and harbormaster services. The harbormaster monitors VHF-FM channels 16 and 9. The northeasternmost arm of the dock has reported depths of 12 feet alongside. The dock is protected by a breakwater extension that should not be approached closely because of stone riprap. The breakwater extension is marked at the NE end by

a light.

A dredged channel leads N around the end of the breakwater to a triangular shaped basin off the end of the Michigan State Waterways Commission dock. In July 2007, the controlling depth was 11.1 feet in the entrance channel to the basin with depths of 9 to 10 feet in the basin.” (10)

(a) It provides excellent facilities for

- (1) Tenders serving cruise ships anchored in the bay. Tenders can dock in close proximity to the shore.
- (2) For the ships of Blount Small Ship Adventures, the *Niagara Prince* and the *Grande Mariner*, the dock has adequate depth and dock length for their mooring but need additional bollards and fenders. Both ships are 183 feet in length or less, 40 feet in beam, and draw less than seven feet. (11)
- (3) Its US-23 location provides excellent access to transportation and is the focal point of the City of East Tawas. US-23 is a main north/south route. M-55, a main east/west route intersects US-23 within 1.1 miles (2 minutes) from the dock. (11a)

(b) Key infrastructure and service elements nearby include:

- (1) Hospital: **St Joseph Health System** is one of the Thompson Reuters Top 100 Hospitals and has 69 beds. (12) Our community is proud of our hospital. Helicopter transport to larger hospitals is available when needed. [1.2 miles (three minutes) from dock.] (13)
- (2) Iosco County Emergency Medical Service (**EMS**) is available throughout the county and, in addition, trained first responders are provided by local fire departments. In addition, there is county-wide 911.

(14)

(3) **State Police Post:** 0.2 miles (one minute) from dock. (15)

(4) **County Sheriff's Department:** 1.6 miles (three minutes) from dock. (16)

(5) Fire Departments:

a.) **East Tawas Fire Department:**

- 0.1 miles (one minute) from dock (17)
- Well equipped with (18)
 - > Pierce Impel Rear Mount Rescue Pumper
 - > Pierce Saber Custom Chassis Pumper
 - > Ladder 1: Duplex 85 foot Aerial Ladder
 - > Brush 1: 3/4 ton GMC brush truck
 - > Squad 1: E-350 Marque Type III Ambulance

b.) **Tawas City Fire Department:**

- 1.9 miles (3 minutes) from dock (19)
- trained for onboard fires due to cargo port in their primary service area. (20)
- Well equipped with (21)
 - > Ford 550 Brush Truck, # 61
 - > Pierce Custom Engine/Pumper, # 62
 - > Pierce Custom Engine/Pumper, #63
 - > Tanker Tender Ferrara Custom, # 64
 - > Medical Rescue Type III Ambulance Package: Ford E-350

- c.) Six other fire departments are part of an interconnecting mutual aid agreement. (22)
- (6) **U.S. Coast Guard Station: Station Tawas**
- a.) Oldest Station in District: Established 1876 (23)
 - b.) Boats at station
 - 47-foot motor lifeboat: self-righting, self-bailing first response rescue resource (24a)
 - 25-foot rigid hull inflatable boat: 45 knot per hour, direct response Defender Class (24b)
- (7) **Airports:**
- a.) **Iosco County Airport:** (25)
 - > runway: paved 4,802 x 75 feet
 - > owned by Iosco County
 - > 4.5 miles (nine minutes) from dock (26)
 - > Id: 6D9
 - b.) **Oscoda Wurtsmith Airport:**
 - > paved **heavy duty** 11,800 foot x 200 foot runway (27)
 - > owned by Oscoda Wurtsmith Airport Authority (formerly Wurtsmith Air Force Base)
 - > 18.3 miles (26 minutes) from dock (28)
 - > active repair facility for jet-liners
 - > Id: KOSC
 - > The Yankee Air Force, Wurtsmith Division, maintains a museum on site. (28a)
- (8) **East Tawas:** Dock is located downtown in a well-

organized, efficient city. Designated as a “Cool City.” (29) There are many regular events occurring weekly such as (30)

- a.) band concerts
- b.) live music street dances
- c.) Farmers Market
- d.) many seasonal events and festivals
- e.) nearby communities also offer weekly events

(C) Tawas Bay as an attractive cruise ship destination. Tawas Bay is **near many unique and interesting tourist destinations**. Quality nearby attractions reduce passenger travel time and thereby increase passenger satisfaction. The distances and times shown below are all from the East Tawas State Dock as calculated by Google Map and all are nearby.

1. **Huron National Forest:** Established in 1909, the U.S. Forest Service restored lands logged in the 1800's to lush working forests. This 120,000 acre forest supports a wide array of commercial and recreational uses. (31) Of interest to day visitors are:

(a.) **Trails**

(1.) **Hiking**

- a.) **Corsair Trail System:** A 22-mile trail system of loops, that allows the hiker many choices of length and scenery. Trails wander through the forest and along Silver Creek. 9.5 miles (22 minutes) from the dock. (32)
- b.) **Highbanks Trail:** walk along the Au Sable Bluffs for eight miles and enjoy wonderful scenery. 14.5 miles (35 minutes) from dock. (32)

(2.) **Horseback Trails:** The 240-mile Shore to Shore trail (horseback riding, hiking, and cross country skiing) begins at the Corsair Trail System mentioned above. (33)

(b.) **Byways, overlooks & historic sites:** River Road Scenic

Byway, a **National Scenic Byway**, meanders along the bluffs beside the Au Sable River, a National Scenic River. The Byway and the River are surrounded by the Huron National Forest. It is for 22 miles in length and features

(34)

- (1.) **Eagle Run Trail:** An relatively flat 7 mile looped hiking/mountain biking trail system noted for birding, wild flowers and river access. 17.6 miles (24 minutes) from dock (35)
- (2.) **Foote Hydroelectric Dam:** A hydroelectric dam operated by Consumers Power and the Michigan Department of Natural Resources. A historic structure known for the large impound area it creates and for steelhead fishing. (36) 21.1 miles (30 minutes) from dock
- (3.) **Foote Pond Overlook:** A spectacular view of Foote Pond from the high sand bluff beside the Au Sable. A great spot to see Bald Eagles, picnic and hike. (37) 15.9 miles (33 minutes) from dock.
- (4.) **Cooke Hydroelectric Dam:** The first of 6 dams built on the Au Sable River , on the National Register of Historic Places. Began operations in 1912 and operates today much as it did in 1912. Fishing pier and picnicking. (38) 19.4 miles (52 minutes) from dock
- (5.) **Lumberman's Monument:** Large bronze statue commemorates loggers from the 1800. Visitor Center, gift shop, outdoor exhibits, interpretive programs, video presentations. Restrooms, picnic areas, walking trails, drinking water. (39) 14.5 miles (35 minutes) from dock.
- (6.) **Kiwanis Memorial:** Erected in 1931 to recognize Michigan Kiwanis Clubs that donated 7 million red pine seedlings for 10,000 acres of forest. Trees are now 70 to 80 feet in height. (40) 14.3 miles (34 minutes) from dock.

- (7.) **Canoer's Monument:** A monument commemorating participants in the Au Sable River Canoe Marathon. Located at an scenic river overlook and a Bald Eagle nesting area. (41)
- (8.) **Iargo Springs Interpretive Site:** Panoramic view of river, historic source of drinking water since pre-settlement days. Water was thought to have therapeutic value.(42) A beautiful spot.
- (9.) **Five Channels Hydroelectric Dam:** The second of the 6 dams built on the Au Sable by Consumers Power Company in 1912. Five Channels Dam Workers Camp is on the National Register of Historic Places. (43)
- (10.) **Loud Hydroelectric Dam:** 4,000 kilowatts capacity hydroelectric Dam, completed in 1913 and Named for Edward Loud an Oscoda lumberman. Loud had logged along the Au Sable and purchased cut-over lands along the shore. Subsequently formed a partnership with William Foote for the six dams along the river. (44)
- (11.) **West Gate Overlook:** Viewing decks overlook the Loud Dam Pound. Bald Eagles frequent the area. (45) 28.9 miles (35 minutes from dock)
- (12.) **Rollways Picnic Area:** High above Loud Pond the Picnic area contains the areas last log shelters built by the Civilian Conservation Corp in the 30's. (46)
- (c.) **Small stream trout fishing:** The National Forest contains some small streams which are ideally suited for trout fishing. The Au Sable River is noted below for its fishing.
- (d.) **Old-Growth Forest:** A knowledgeable guide can take groups to old growth forests and dense glens of old cedar.
- (e.) **Birding:** The National Forest is in general an excellent birding area and has excellent sites listed below under birding.
- (f.) **Wild flowers and trees:**
 - (1.) **Wild flowers:** A knowledgeable guide in the correct

- season can show you a wide array of native flowers.
- (2.) **Trees:** The forest contains a wide variety of native trees and shrubs. Qualified guides are available for tours.
- (g.) **Glacial Moraine geology:** The entire area is based on glacial geology. Our hills are moraines. A qualified guide is available for tours.
2. **Tawas Point State Park:** A 183-acre **day trip jewel** for cruise passengers. (47)
- (a.) Situated on a sand spit known as Tawas Point and also known as the “Cape Cod of the Midwest.”
- (b.) Contains a **beautiful uncrowded sand beach** bordered by windblown dunes. The dunes support beach grass, wild sweet peas, and wind-bent scrub pine and oak to create a magnificent scene. Ideal for walking and swimming.
- (c.) Tawas Point Light: **Active lighthouse:** The Victorian-era station is open for **lighthouse tours** and has a gift shop. The light-keepers house is available for short-term rent.
- (d.) **Birding: 297 species** have been seen in and around the park. Designated an “Important Birding Area” by the National Audubon Society.
- (e.) **Kiteboarding:** The Point provides a unique and **favorite** area for **kiteboarders**. Steady wind, shallow water and a large beach makes this a boarder’s Mecca. Boarders do not interfere with swimming areas. The following quote from Great Lakes Kiteboarding accurately describes the Bay and Lake.

“Tawas Bay has long been considered one of the finest sailing areas in the country due to the steady winds and protected waters. Consistent winds, clear, warm water, and abundant sandy beaches make Tawas Point a kiteboarding nirvana, with conditions ranging from shallows for lessons, speed slicks, downwinders, and waves. Our exclusive shallow water lesson site is perfect for learning. Experience the pristine natural beauty of Tawas Point and maximize your learning and freeriding with our local expertise.” (48)

- (f.) **Sandy Hook Trail:** A 1.5 mile hiking trail composed mainly of a sandy path following both the bay side and lake

side of the point. The trail is signed with interesting information stations. (49)

- (g.) **Multi-use Trail:** The end of the 12 mile Lighthouse to Alabaster Multi-use trail. Walk, jog, bike, or skate to the 3.3 mile signed native tree arboretum in Alabaster Township. (50) The trail also passes the State Dock where bike rental is available.

- 3. **Au Sable River:** The Au Sable River is a major tributary to Lake Huron. It is a 90 mile long watershed of 1.932 square miles. (51) A significant segment of the river is nearby.

- (a.) **Vistas:** The Au Sable flows to the Lake Huron surrounded by high sand moraines providing many overlooks. The National Scenic Byway description describes many of these.

- (b.) **Boating:** The Au Sable is a popular canoeing, kayaking, tubing and drifting venue. There are many liveries along the river making access to these activities easy. (52)

- (c.) **Fishing:** PureMichigan describes the river as “an American treasure, with unmatched stable water-flow and steady, cool temperatures that make it some of the premiere trout water in the nation.” (53)

- (d.) **Birding:** The Au Sable contains many great birding areas. See Birding Below.

- (e.) **Historic hydroelectric dam system:** Described above.

- (f.) **The Au Sable River Queen:** Operating at Foote Site in Oscoda, the two deck 25 passenger *River Queen* has daily cruises. The **paddle-wheel** ship has a snack bar and a liquor bar, as well as some live music cruises. (54)

4. Tawas Bay and Lake Huron

- (a.) Beach Activities:

- (1.) **At the dock:** The 1,600 foot long sugar sand East Tawas City Park Beach is at the foot of the dock. (55)

- (2.) **Tawas Point State Park beach** described above is a

short 4.2 miles, 10 minutes by car, 20 minutes by bike and 1 hour and 20 minutes by foot from the dock.

- (3.) **Tawas City Park** boasts of volley ball courts, playgrounds, fishing pier, swimming and hosts a number of fairs and shows. It is 1.6 miles away, 3 minutes by car, 9 minutes by bike and 30 minutes by foot. (56)
- (4.) **Oscoda Area beaches:** Just 16 miles to the north are the open lake beaches (57)
 - (a.) Oscoda Beach Park
 - (b.) Shoreline Park
 - (c.) Three Mile Beach Park
- (b.) **Boating:** Boats of many types are available from liveries. Jet skis, kayaks, rowboats, utility fishing boats and small speedboats.
- (c.) **Fishing:** (Bay, lake and river)
 - (1.) Charter boats are available for salmon, lake trout and walleye.
 - (2.) Utility fishing boats are available for rent.
 - (3.) Bait and advice is available at the dock.
 - (4.) Dock and shore fishing. The East Tawas State Dock is an attractive fishing place. The nearby Tawas River provides a productive fishing spot. Tawas City maintains three fishing areas.
 - (a.) Gateway Park at the Tawas River
 - (b.) Fishing pier at the Tawas City Park mentioned above.

(c.) Tawas River Canoe Launch site.

(d.) **Charity Island Cruises:** Cruises to Charity Island leave from the East Tawas State Dock. Mid-day and dinner cruises are available. Charity Island is approximately 18 statute miles from the state dock. Visitors go to the Island because of its excellent birding, its lighthouse, its fine food, and its history. Nearby is the Gravelly Shoal Light. Weather permitting, a lighthouse trifecta is possible: Tawas Point, Charity Island, and Gravelly Shoal. (Light lovers, note that to the South in Bay City the Saginaw River Light is being restored and to the north are several lights including Sturgeon Point, Two lights at Presque Isle, and the lights of Thunder Bay. (58)

5. **Golf:**

(a.) nationally rated courses:

(1.) **Lakewood Shores**, a four-course resort

a.) The Gailes:

- Kevin Aldridge design, built in 1992, patterned after Scotland's seaside courses
- 6,954 yard, par 72, 18-hole course
- 20.8 miles (29 minutes) from dock.
- Ratings: 75.0 and 138 Slope
- Rankings and awards: #1 Best New Resort Course in the United States: Golf Digest, (1993) (59)

(b.) The Serredella Course

- Bruce Matthews design, opened in 19
- 6,802 yard, par 72, 18-hole course
- 20.8 miles (29 minutes) from dock. (60)

(c.) The Blackshire Course

- Kevin Aldridge design, opened in 2001

- 6,898 yard, par 72, 18-hole course
- 20.8 miles (29 minutes) from dock. (61)

(d.) Wee-Links Course

- Kevin Aldridge design, opened in 1994
- 1,014 yard, par 54, 18-hole course
- 20.8 miles (29 minutes) from dock. (62)

(2.) **Red Hawk Golf Club:**

(a.) Arthur Hills design

(b.) 6,589 yard, par 71, 18-hole course

(c.) 7.5 miles (15 minutes) from dock.

(d.) Ratings: 71

(e.) Rankings and awards

- > Top 100 Public Courses in America Golf Digest (2005)
- > Rated the # 3 Public Golf Course in Michigan, Great Lakes Golf Magazine, (2003)
- > Rated #40 Public Golf Course in America, Golf Digest (2008)
- > Rated #1 Best Service in the Great Lakes, Great Lakes Golf Magazine, (2003) (63)

b. Other Excellent Local Courses

(1.) **Tawas Creek Golf Course**

(a.) Built in 1933

(b.) 6,536 yard, par 72, 18-hole course

(c.) 4.1 miles (8 minutes) from dock

(d.) Rating: 71.9 (64)

(2.) **Huron Breeze Golf and Country Club**

(a.) Bill Newcomb design, built 1989

(b.) 6,806 yard, par 72 , 18-hole course

- (c.) 17.0 miles (19 minutes) from dock
- (d.) Rating: 71.9 (65)

6. **Birding:** The area within 25 miles of the East Tawas State Dock provides truly unique birding opportunities.
- A. Spring North Bound Migration: Our area's location is at a pinch-point along the birds migratory pathway. It funnels thousands of birds of many specie through our area in a short period of time.
 - B. Fall South Bound Migration: Likewise, our area's location is at a pinch-point along the bird's southerly migratory.. It funnels thousands of birds of many specie through our area at different times related to individual specie.
 - C. Our area is a/the destination nesting areas for many specie.
 - D. Four Audubon Important Birding Areas (IBA) are located within 20 miles of the dock. (66)
 - (1.) Kirtland's Warbler Management Unit (67)
 - (a.) Ruffed Grouse
 - (b.) American Woodcock
 - (c.) Golden-winged Warblers
 - (d.) Kirtland's Warblers
 - (2.) Lower Au Sable River: (68)
 - (a.) Northern Goshawk
 - (b.) Trumpeter Swans
 - (3.) Tawas Bay (69)
 - (a.) Long-tailed Ducks
 - (b.) Red-Breasted Mergansers
 - (4.) Tawas Point State Park (297 specie have been observed on Tawas Point) (70)
 - (a.) terns

- (b.) Whimbrel
- (c.) gulls
- (d.) Red Knot
- (e.) Ruddy Turnstone
- (f.) Piping Plover
- (g.) Bonaparte's Gulls
- (h.) Common Terns
- (I.) Black Terns
- (j.) Bald Eagles
- (k.) Common Loons

E. **Additional Good Birding Sites nearby: The Au Sable Valley**
Audubon lists in addition to those mentioned above: (71)

(1.) Tuttle Marsh Wildlife Area: A 400 acre wetland complex managed by the Forest service provides viewing access to Teal, Goldeneye, Mallards, geese, Herons, American Bittern and other wildlife. (72)

(2.) Clarks Marsh: Great Getaways Travel Planners provide an excellent description of Clarks Marsh.

“ Clark's Marsh Wildlife Area Clark's Marsh is a collection of still woodland ponds and old growth forest. Its flat grassy trails make it a perfect place for visitors to view rare native wild flowers and many species of wild birds including the most productive Eagle's nest in the area. “
(73)

(3.) Humes Marsh: A nearby marshy site near an old logging railroad right-of-way.

F. This is a very good area for birding. There are an abundance of easily accessible viewing sites and qualified guides.

7. **Gambling:** The new Saganing Eagles Landing Casino is within 40 miles of the State Dock. It is a 32,000-square-foot facility boasting of over 800 slot machines and 40 electronic gaming tables.

8. **Celestial Events:** There is no better place to marvel at the beauty of a sunrise. There are few better places to enjoy the night sky.

C. Conclusions:

1. The infrastructure facilities available today in East Tawas Can support cruise ship activity.
2. Infrastructure modifications and improvements can make such activity easier. See section IV.
3. There are a many activities and venues of the quality needed to support cruise ship activities.

Notes:

1. United States Coast Pilot 6, 27th Edition; U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Ocean Service; 1997; "Distances Between Points on Lake Huron and St. Marys River; Page T-20
2. Statute miles from the table on page T-20 above are multiplied by factor of 0.86897 from Conversion Factors Table found on page T-31 of the referenced Coast Pilot to obtain nautical miles.
3. The formula for speed equals distance / time was applied to the distance of each port from East Tawas using 10 knots per hour as the speed to determine the time required to arrive in East Tawas from each port.
4. The formula for speed equals distance / time was applied to the distance of each port from East Tawas using 15 knots per hour as the speed to determine the time required to arrive in East Tawas from each port.
5. The eastern limit of the Upbound course from U.S. Department of Commerce Chart 14860, National Oceanic and Atmospheric Administration, National Ocean Service; 27th Edition, February 9, 1980, was used as the line from which to measure the perpendicular distance to East Tawas.
6. The Western limit of the Downbound course from U.S. Department of Commerce Chart 14860, National Oceanic and Atmospheric Administration, National Ocean Service; 27th Edition, February 9, 1980, was used as the line from which to measure the perpendicular distance to East Tawas.

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7. Developing Shore Excursions For Great Lakes Cruises - A workbook; Investment and Development Office, Ministry of Tourism, Ontario, Canada; September, 2007; Page 22
8. United States Coast Pilot 6, 27th Edition; U.S. Department of Commerce , National Oceanic and Atmospheric Administration, National Ocean Service; 1997; Paragraph 193, Page 228
9. (<http://www.michigan.org/Property/Detail.aspx?p=B13279>)
10. http://www.nauticalcharts.noaa.gov/nsd/xml2html.php?xml=coastpilot/files/cp6/CPB6_E40_C10_20100218_0932_WEB.xml
11. See Appendix I, Page 2
- 11a. Google Map Directions:
http://maps.google.com/maps?f=d&utm_campaign=en&utm_medium=ha&utm_source=en-ha-na-us-bk-dd&utm_term=google%20map%20directions
12. St Joseph Health Systems: <http://www.sjhsys.org/>
13. Google Map Directions:
http://maps.google.com/maps?f=d&utm_campaign=en&utm_medium=ha&utm_source=en-ha-na-us-bk-dd&utm_term=google%20maps%20directions
14. Iosco County Web-site: <http://iosco.m33access.com/communityfac.htm>
15. http://www.michigan.gov/msp/0,1607,7-123-1584_3470_4705---,00.html
in addition distances from Google Map Directions
16. <http://iosco.m33access.com/sheriff.htm>
in addition distances from Google Map Directions
17. Distances and travel time from Google Map Directions
18. East Tawas Fire Department Web-site: <http://www.etfd.org/apparatus.htm>
19. Distances and travel time from Google Map Directions
20. Port Gypsum, a bulk cargo shipping facility for gypsum is in Alabaster Township part of the Tawas City Departments primary service area.
21. Tawas City Web-site: <http://www.tawascity.org/webedit.php?name=fire2>
22. Iosco County Web-site: Community Facilities: Fire Protection:
<http://iosco.m33access.com/communityfac.htm>
23. US Coast Guard Web-site: Sector Detroit: Station Tawas:
<http://www.uscg.mil/d9/sectdetroit/tawas.asp>
- 24a. US Coast Guard Web-site: Aircraft and Cutters: <http://www.uscg.mil/datasheet/47mlb.asp>
- 24b. US Coast Guard Web-site: Aircraft and Cutters: <http://www.uscg.mil/datasheet/25rbs.asp> +
25. AirNav.com: KOSC: Oscoda-Wurtsmith Airport: <http://www.airnav.com/airport/KOSC>
26. Distances and travel time from Google Map Directions

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27. AirNav.com: KOSC: Oscoda-Wurtsmith Airport: <http://www.airnav.com/airport/KOSC>
28. Distances and travel time from Google Map Directions
- 28a. <http://www.wurtsmith-yaf-museum.org/Museum/museum.html>
29. East Tawas Web-site: <http://www.easttawas.com/>
30. Tawas Area Chamber of Commerce Web-site: Calendar of Events:
http://www.tawas.com/index.php?option=com_zcalendar&view=calendar&Itemid=121
31. Http://www.msu.edu/~wesleyau/nuron_national_forest.html
32. US-23 Heritage Route Web-site: Corsair Hiking and Cross Country Ski Trail System:
<http://www.us23heritageroute.org/alcona.asp?ait=av&aid=35>
33. Trails.com website: Highbanks Trail:
http://www.trails.com/tcatalog_trail.aspx?trailid=HGM056-026
34. Michigan Trail Riders Association web-site:
Http://members.tm.net/trailrider/public_html/shore_to_shore_trail.html
35. River Road National Scenic Byway Brochure: US Forest Service
36. River Road Scenic Byway: Foote Hydroelectric Dam:
<http://www.byways.org/explore/byways/10781/places/62850/>
37. River Road National Scenic Byway Brochure: US Forest Service
38. River Road Scenic Byway: Cooke Hydroelectric Dam:
<http://www.byways.org/explore/byways/10781/places/62854/>
39. River Road National Scenic Byway Brochure: US Forest Service
40. River Road Scenic Byway:Kiwanis Monument, MI:
<http://www.byways.org/explore/byways/10781/places/3076/>
41. Great Getaways: Canoers Memorial in Oscoda, Michigan: 11/12/2010:
<http://www.greatgetaways.tv/plannerbanksswf3.html>
42. Iargo Springs - Oscoda Hiking & Backpacking, Historic Sites, Nature & Parks - Pure Michigan: 11/21/2010: <http://www.michigan.org/Property/Detail.aspx?m=4:7&p=B8561>
43. Au Sable River | Consumers Energy Five Channels Hydro: 11/13/2010:
<http://www.consumersenergy.com/content.aspx?id=1339>
44. Au Sable River | Consumers Energy: Loud Hydro: 11/13/2010:
<http://www.consumersenergy.com/content.aspx?id=1339>
45. Westgate Welcome Center and Overlook: 11/21/2010:
<http://www.byways.org/explore/byways/10781/places/62525/>
46. <http://www.byways.org/wxplere/byways/10781/places/62833/>
47. Tawas Point State Park: 11/21/2010:
<http://www.dnr.state.mi.us/publications/pdfs/wildlife/viewingguide/nlp/71Tawas/index.htm>
48. Best Kiteboarding.com/Best-Schools-Premier-Destination-GLK: 11/13/2010:

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- <http://www.bestkiteboarding.com>
49. Michigan Trail Maps: Sandy Hook Trail:
<http://www.michigantrailmaps.com/Iosco/SandyHookTr/SandyHookTr.html>
50. Huron Shores Heritage Route Brochure: Heritage Route 23: Iosco County Michigan:
www.us23heritageroute.org
51. Au Sable River: <http://flyanglersonline.com/features/greatrivers/ausableny/>
52. Oscoda Area Convention and Visitor's Bureau:
<http://www.oscoda.com/canoeing.php>
53. Pure Michigan: Au Sable River:
<http://www.michigan.org/News/Detail.aspx?ContentId=c83bacf4-9f91-4f63-ac5d-6b9cea84ab7e>
54. <http://www.ausableriverqueen.net/schedule.html>
55. Pure Michigan: East Tawas City Park Beach:
<http://www.michigan.org/Property/Detail.aspx?p=B15090>
56. Tawas City Parks and Recreation: <http://www.tawascity.org/webedit.php?name=parks>
57. <http://www.michigan.org/Things-to-Do/Outdoors/Beaches/Default.aspx?city=G3588>
58. Charity Island Lighthouse and Dining Excursions - East Tawas Boating, Casual Dining:
<http://www.michigan.org/property/Detail.aspx?p=B3325>
59. <http://www.golflink.com/golf-courses/course.aspx?course=544945>
60. <http://www.golflink.com/golf-courses/course.aspx?course=544945>
61. <http://www.golflink.com/golf-courses/course.aspx?course=544945>
62. <http://www.golflink.com/golf-courses/course.aspx?course=544945>
63. Red Hawk Golf Club - East Tawas Casual Dining, Golf Courses, Golf Schools - Pure Michigan: <http://www.michigan.org/Property/Detail.aspx?p=G18342>
64. <https://handicaptracker.golf.com-course/course.asp?golf-course=12565>
65. Huron Breeze Golf & Country Club in Ai Gres: 11/09/2010:
http://www.golf.com/golf/courses_travel/coursefinder/course/0,28290,1265329,00html
66. Audubon: Birds & Science: Michigan IBAs: Michigan Important Bird Areas: 11/17/2010:
<http://iba.audubon.org/iba/stateIndex.do?state=US-MI>
67. Audubon: Birds & Science: Site Profile: Huron National Forest (Golden-winged Warbler management Units):
<http://iba.audubon.org/iba/viewDiteProfile.do?siteId=3581&navSite=state>
68. Audubon: Birds & Science: Lower Au Sable River and Iosco County:
<http://iba.audubon.org/iba/viewDiteProfile.do?siteId=2738&navSite=state>
69. Audubon: Birds & Science: Saginaw Bay - Tawas Bay:

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- <http://iba.audubon.org/iba/viewDiteProfile.do?siteId=3811&navSite=state>
70. Audubon: Birds & Science: Tawas Point State Park:
<http://iba.audubon.org/iba/viewDiteProfile.do?siteId=1647&navSite=state>
71. Tawas Point Birding Festival: Self-guided Birding: 11/09/2010:
<http://www.ausablevalleyaudubon.com/SelfGuided.html>
72. Tuttle Marsh Wildlife Area: 11/17/2010:
<http://www.dnr.state.mi.us/publications/pdfs/wildlife/viewingguide/nlp/70Tuttle/index.htm>
73. Great Getaways Travel Planners: http://www.greatgetaways.tv/planner_oscodaspring.html

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IV. Economic and other Impact

A. Industry and its national impact:

1. Cruise Lines International Association (CLIA) annually publishes "The
b.) North Americas largest cruise industry association
c.) 25 cruise line members Contributions of the North American Cruise Industry to the U.S. Economy" CLIA is
(1)
 - a.) A nonprofit corporation(see Table II-2 in section 2)
 - d.) 16,000 North American travel agents
 - e.) 100 port, supplier, and ship yard members
 - f.) Successor to the U.S. Federal Maritime Commission approved International Council of Cruise Lines (ICCL)

2. CLIA's estimate of Economic Impact for USA in 2009 (2)

a.) Cruise line and passenger spending	\$17,150,000,000
b.) Direct jobs created	134,494
c.) Direct wages paid	\$ 5,480,000,000
d.) Spending generated output	\$35,100,000,000

3. CLIA's estimate of economic impact on Michigan for the year 2009 (3)

a.) Direct purchases in Michigan	\$ 199,000,000
b.) Total employment	2,680
c.) Total income	\$ 131,000,000
d.) Average annual wage	\$ 49,100

B. Economic Impact on individual ports:

1. This report focuses on cruise boat stops at ***ports-of-call***. That is ports where a ship stops on its cruise, not the ports where cruises begin (embarkation ports) or where they end (disembarkation ports). East Tawas would be a port-of-call as opposed to an

Port of Call Feasibility Study: Section IV: Economic Impact

embarkation or disembarkation port.

- a.) Typical Passenger and Crew in port spending is outlined below in Table IV-1

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Port of Call Feasibility Study: Section IV: Economic Impact

Develop Isosco, Inc./City of East Tawas

Port of Call Project

TABLE IV - 1

Per Visit Passenger Spending

Restated to June, 2010 U.S. Dollars (\$ US)

PASSENGER EXPENDITURES IN PORTS OF CALL

Source	Area	Data / visit		Inflation Factor	\$ US Spending 6-2010 \$\$
		Year	Spending		
Cruise Industry Overview-2006: F-CCA (4)	Caribbean region	2000	\$103.88	1.2643	\$131.34
Charting A Course: The Cruise Industry, the Government of Canada, (5)	St. John's, Newfoundland, Canada	2001	\$36.61	1.2245	\$44.83
Economic Impact of Cruise Ship Passengers In Bar Harbor, Maine (6)	Bar Harbor, Maine, USA	2002	\$85.26	1.2116	\$103.30
Victoria's Cruise Ship Industry: Economic Benefits & Env. Impacts (7)	Victoria, British Columbia, Canada	2003	\$65.71	1.1865	\$77.96
The Cruise Industry and British Columbia (8)	Canada	2003	\$94.83	1.1865	\$112.52
Economic Impact of Cruise Ship Passengers In Portland, Maine (9)	Portland, Maine, USA	2004	\$80.51	0.9961	\$80.20
2009 US Economic Impact Analysis: CLIA (10)	USA	2009	\$121.05	1.0105	\$122.32
				Sum	\$672.47
				Number	7
				Mean	\$96.07
				Maximum	\$131.34
				Minimum	\$44.83
				Range	\$86.51
				Median	\$103.30
				Mode	NA
				Std Devi	\$27.93

CREW EXPENDITURES IN PORTS OF CALL

Source	Area	Data / visit		Inflation Factor	\$ US Spending 6-2010 \$\$
		Year	Spending		
Cruise Industry Overview-2006 (11)	Caribbean region	2000	\$72.06	1.2643	\$91.11
The Cruise Industry and British Columbia (12)	Canada	2003	\$79.90	1.1865	\$94.80
Economic Impact of Cruise Ships In Maine (13)	Portland, Maine, USA	2004	\$23.58	1.1490	\$27.09
2009 US Economic Impact Analysis: CLIA (14)	USA and Caribbean	2009	\$48.24	1.0151	\$48.97
				Sum	\$261.97
				Number	4
				Mean	\$65.49
				Maximum	\$94.80
				Minimum	\$27.09
				Range	\$67.71
				Median	\$70.04
				Mode	NA
				Std Dev	\$28.56

1.) Spending amounts are from several years and are restated into 2010 dollars for the sake of

Port of Call Feasibility Study: Section IV: Economic Impact

comparability. For subsequent calculations the means are used.

(a.) Mean Passenger port-of-call spending:
\$96.07

(b.) Mean Crew member port-of-call Spending:
\$65.49

2.) The analysis below develops spending predictions for an East Tawas port of call stop based on:

(a.) ship arriving in morning

(b.) staying in port for 8 hours

(c.) ship departing in evening

(d.) port-to-port trip at night

3.) **Cruise Passengers are a new market.** The University of Maine conducted a series of studies on cruise ship activity in Portland and Bar Harbor, Maine. The Maine studies show that unlike most other tourist visitors, cruise ship passengers were from different areas. Table IV-2 shows that the most frequent states of origin of non-cruise overnight visitors account for less than 9% of cruise visitors. (15) A reasonable conclusion is that cruise ship activity does not compete with other tourism, but is a new market - new money to an area.

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Port of Call Feasibility Study: Section IV: Economic Impact

Develop Iosco, Inc/City of East Tawas
 Port Of Call Project
 Passenger Origin: Table IV-2
 2009 Portland Maine Study (15)

Maine's Normal Tourism Market		Cruise Tourism Market	
Origin	Over-Night Visitor %	Portland, ME	
		# Passengers	%
Massachusetts	31.0%	24	2.0%
New Hampshire	10.0%	5	0.4%
New York	8.0%	51	4.3%
Connecticut	7.0%	17	1.4%
other origins	44.0%	1,080	91.9%
TOTAL	100.0%	1,177	100.0%

- 4.) **Cruise passengers come back:** In a different study, Maine researchers combined survey information and concluded that the study suggests that more than one-third of port-of-call visitors plan a return trip within two years. (16)

- 5.) **Cruise Passengers are new visitors to the port-of-call area:** University of Maine studies indicate that
 - (a.) Over 75% (75.5%) of cruise passengers are visiting Portland for the first time. (17)
 - (b.) Almost 75% (74.63%) of cruise passengers are visiting Bar Harbor for the first time. (18)

- 6.) **Cruise ship schedules can dramatically impact the starting and ending months of the tourism season.** For Bar Harbor, Maine; fall-color cruises convert October to a significant and productive month for local retail stores, restaurants and bars. This amounts to an 80% increase for October. (23)
 The East Tawas area has the opportunity to utilize fall color and the spring migration (with or without

Port of Call Feasibility Study: Section IV: Economic Impact

cruise ships) to expand the season. The Table 2-B, below, displays Bar Harbor's 2002 sales information, sales mix and sales seasonality.

Develop Isosco, Inc./ City of East Tawas
 Port of Call Project
 Estimated 2002 Taxable Sales In
 Retail Stores, Bars and Restaurants (note 23)
 Bar Harbor, Maine

TABLE IV-2-B

Month	Non-Cruise	Cruise	Total Sales To Both
	Passenger Sales \$	Passengers Sales \$	
January	\$ 1,143,667	\$ 0	\$ 1,143,667
February	\$ 776,106	\$ 0	\$ 776,106
March	\$ 1,127,127	\$ 0	\$ 1,127,127
April	\$ 1,491,435	\$ 0	\$ 1,491,435
May	\$ 3,461,043	\$ 240,344	\$ 3,701,387
June	\$ 8,475,409	\$ 694,569	\$ 9,169,978
July	\$ 14,006,007	\$ 823,770	\$ 14,829,777
August	\$ 14,626,606	\$ 561,999	\$ 15,188,605
September	\$ 7,687,520	\$ 1,632,498	\$ 9,320,018
October	\$ 3,431,426	\$ 2,729,025	\$ 6,160,451
November	\$ 1,606,564	\$ 0	\$ 1,606,564
December	\$ 2,225,585	\$ 0	\$ 2,225,585
Annual Total	\$ 60,058,495	\$ 6,682,205	\$ 66,740,700

Sales Mix Percent

Month	Non-Cruise	Cruise	Total Sales To Both
	Passenger Sales \$	Passengers Sales \$	
January	100.0%	0.0%	100.0%
February	100.0%	0.0%	100.0%
March	100.0%	0.0%	100.0%
April	100.0%	0.0%	100.0%
May	93.5%	6.5%	100.0%
June	92.4%	7.6%	100.0%
July	94.4%	5.6%	100.0%
August	96.3%	3.7%	100.0%
September	82.5%	17.5%	100.0%
October	55.7%	44.3%	100.0%
November	100.0%	0.0%	100.0%
December	100.0%	0.0%	100.0%
Annual Total	90.0%	10.0%	100.0%

Sales Seasonality (Month as % of Annual)

Month	Non-Cruise	Cruise	Total Sales To Both
	Passenger Sales \$	Passengers Sales \$	
January	1.9%	0.0%	1.7%
February	1.3%	0.0%	1.2%
March	1.9%	0.0%	1.7%
April	2.5%	0.0%	2.2%
May	5.8%	3.6%	5.6%
June	14.1%	10.4%	13.7%
July	23.3%	12.3%	22.2%
August	24.4%	8.4%	22.8%
September	12.8%	24.4%	14.0%
October	5.7%	40.8%	9.2%
November	2.7%	0.0%	2.4%
December	3.7%	0.0%	3.3%
Annual Total	100.0%	100.0%	100.0%

Port of Call Feasibility Study: Section IV: Economic Impact

2. East Tawas Economic Impact: Michigan State University developed an economic impact calculator for tourism in rural regions. Table IV - 3 below develops the inputs and outputs for an IMPLAN model of rural Michigan. A narrative follows the table.

Port of Call Project
TABLE IV - 3

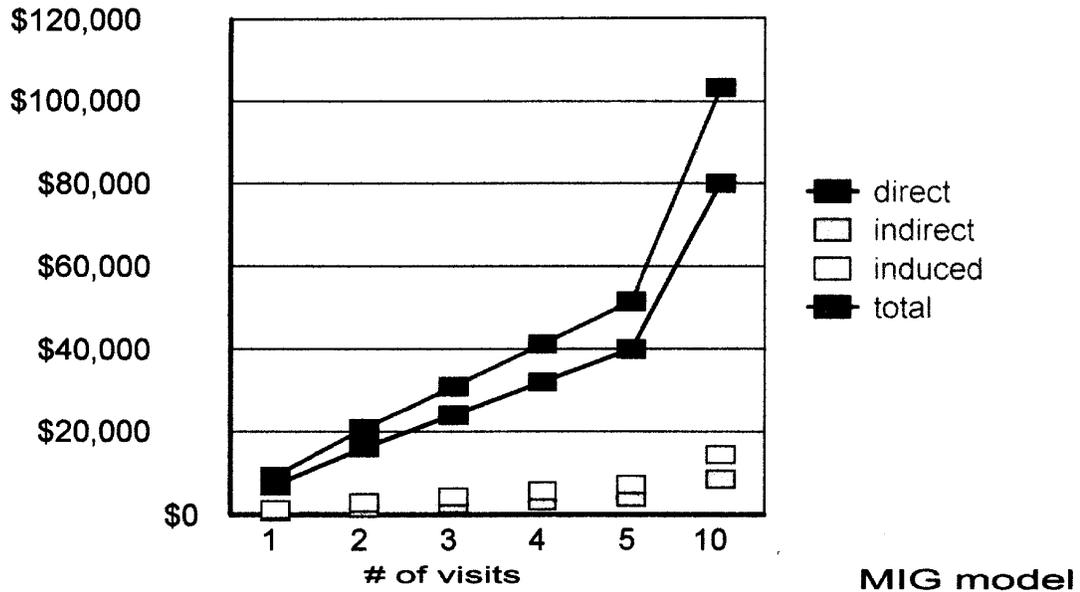
ITEM	SHIP				Unit of Measure
	Niagara Prince	Grande Mariner	Columbus	Pearl Mist	
Size					
Length	177	183	472	335	ft
Beam	39.2	39.8	70	56	ft
Draft	6.3	6.25	17	12	ft
Passengers and Crew					
Passengers: Capacity	90	100	420	210	people
Crew	17	17	170	65	people
Total On Board	107	117	590	275	people
CALL CHARACTERISTICS					
Length of time ship in port	8	8	8	8	hours
% of Capacity used in proforma	95.0%	95.0%	90.0%	90.0%	%
Proforma passengers carried	86	95	378	189	people
% of Passengers coming ashore	95.0%	95.0%	95.0%	95.0%	%
# of Passengers coming ashore	82	90	359	180	people
\$ Spending per passenger	\$96.07	\$96.07	\$96.07	\$96.07	\$
\$ Total Passenger spending per ship	\$7,877.74	\$8,646.30	\$34,489.13	\$17,292.60	\$
% of Shore Passengers taking CL tours	56.0%	56.0%	56.0%	56.0%	%
# of Shore Passengers taking CL tours	48	53	212	106	people
'\$s spent by lines per passenger tours	\$52.00	\$52.00	\$52.00	\$52.00	\$
Less: Cruise Line Margin \$	\$26.00	\$26.00	\$26.00	\$26.00	\$
Cruise Line Margin %	50.0%	50.0%	50.0%	50.0%	%
On Shore Local Tour Spending by Line / person	\$26.00	\$26.00	\$26.00	\$26.00	\$
\$ Total Line spending for tours per ship	\$1,248.00	\$1,378.00	\$5,512.00	\$2,756.00	\$
% of crew coming ashore	25.0%	25.0%	25.0%	25.0%	%
# of crew coming ashore	4	4	43	16	people
\$ Spending per crew member ashore	\$65.49	\$65.49	\$65.49	\$65.49	\$
\$ Total crew member spending per ship	\$261.96	\$261.96	\$2,816.07	\$1,047.84	\$
Dockage spending by lines					
Type of Dockage	Ship	Ship	Tender	Tender	
Number of people brought ashore	86	94	402	196	people
Number of tenders required (40 / trip)	3	3	11	5	tenders
Cost per tender	10	10	10	10	\$
Total tendering Cost	na	na	\$110.00	\$50.00	\$
Mooring at Dock	\$200.00	\$200.00	no	no	\$
TOTAL IN PORT SPENDING	\$9,587.70	\$10,486.26	\$42,927.20	\$21,146.44	\$
Number of people brought ashore	86	94	402	196	people
Average Spending Per on-shore Visitor	\$111.48	\$111.56	\$106.78	\$107.89	mean
MSU E Economic Impact Calculator- Rural Regions					
Capture Rate: % of total spending retained in area	68.3%	68.3%	68.3%	68.3%	
Resulting Local Sales or Output: direct	\$ 6,552	\$ 7,166	\$ 29,336	\$ 14,451	
<i>Sales Multiplier:</i>	1.308	1.308	1.308	1.308	
Resulting Local Sales or Output: direct, indirect & induced	\$ 8,570	\$ 9,372	\$ 38,371	\$ 18,902	\$
Direct Personal Income	\$ 2,530	\$ 2,768	\$ 11,330	\$ 5,581	
<i>Income multiplier</i>	1.267	1.267	1.267	1.267	
Resulting Local personal Income: direct & indirect	\$ 3,207	\$ 3,508	\$ 14,361	\$ 7,074	\$
Direct Value Added	\$ 3,840	\$ 4,200	\$ 17,195	\$ 8,470	
<i>Value Added Multiplier</i>	1.318	1.318	1.318	1.318	
Resulting Total Value Added: direct & indirect	\$ 5,061	\$ 5,536	\$ 22,663	\$ 11,163	

- a.) **Niagara Prince:** IMPLAN model results
- > 86 passengers and crew members go ashore
 - > Including line sponsored tours, spend an average of

Port of Call Feasibility Study: Section IV: Economic Impact

- > \$111.48 yielding total on shore direct spending of \$9,587
 - > \$6,552 (68%) is captured by the local economy in the form of services purchased, but 32% leaks out of the area in the form of payments by vendors to non-area suppliers for goods, etc.
 - > The \$6,552 captured is re-spent within the area and creates a total of \$8,568 of direct, indirect and induced sales. (A multiplier of 1.308)
 - > The \$8,568 in sales yields an increase in personal/employment income of \$3,207.
 - > The \$8,568 of direct, indirect and induced sales and the increase in personal income of \$3,207 are not enough to have a measurable job impact in the MSU model. The Minnesota Implan Group model used later/below does have this feature. None-the-less; when businesses are eking out an economic existence, the additional business has significance. (See appendix 2)
- b.) **Grand Mariner:** IMPLAN model results are very similar to those of the Niagara Prince reflecting the Grande Mariner's slightly larger size. (See appendix 2)
- c.) **Pearl Mist:** IMPLAN model results.
- > 196 passengers and crew members go ashore
 - > Including line-sponsored tours, spend an average of \$107.89 yielding total on-shore spending of \$21,146.44
 - > \$14,451 (68%) is captured by the local economy in the form of services purchased, but 32% leaks out of the area in the form of payments by vendors to non-area suppliers for goods.
 - > The \$14,451 captured is re-spent within the area and creates a total of \$18,902 of direct, indirect and induced sales. (A multiplier of 1.308)
 - > The \$18,902 in sales yields an increase in personal income of \$7,074.
 - > The \$18,902 of direct, indirect and induced sales require one job to produce.
- d.) **Motor Vessel Columbus:** IMPLAN model results.
- > 402 passengers and crew members go ashore
 - > Including line-sponsored tours, spend an average of \$106.78 yielding total-on shore spending of \$42,927.20

Economic Impact Sales / Output



Port-of-Call Project				
Economic Impact: Sales/Output				
Grande Mariner Proforma Visits				
Visits	Direct	Indirect	Induced	Total
1	\$7,152.60	\$789.90	\$1,320.40	\$9,262.90
2	\$16,109.80	\$1,712.10	\$2,903.10	\$20,725.00
3	\$24,029.70	\$2,568.10	\$4,354.80	\$30,952.60
4	\$32,039.60	\$3,424.20	\$5,806.50	\$41,270.30
5	\$40,049.50	\$4,280.20	\$7,258.10	\$51,587.80
10	\$80,099.00	\$8,560.40	\$14,516.30	\$103,175.70

(1.) Direct Sales/Output Impact: MIG’s definition of direct sales/output is: (19)

“The set of expenditures applied to the predictive model (i.e., I/O multipliers) for impact analysis. It is a series (or single) of production changes or expenditures made by producers/consumers as a result of an activity or policy. These initial changes are determined by an analyst to be a result of this activity or policy. Applying these initial changes to the multipliers in an IMPLAN model will then display how the region will respond, economically to these initial changes.”

(2.) Indirect Sales/Output Impact: MIG’s definition of indirect sales/output is: (20)

“The impact of local industries buying goods and services from other local industries. The cycle of spending works its way backward through the supply chain until all money leaks from the

Port of Call Feasibility Study: Section IV: Economic Impact

local economy, either through imports or by payments to value added. The impacts are calculated by applying Direct Effects to the Type I Multipliers.”

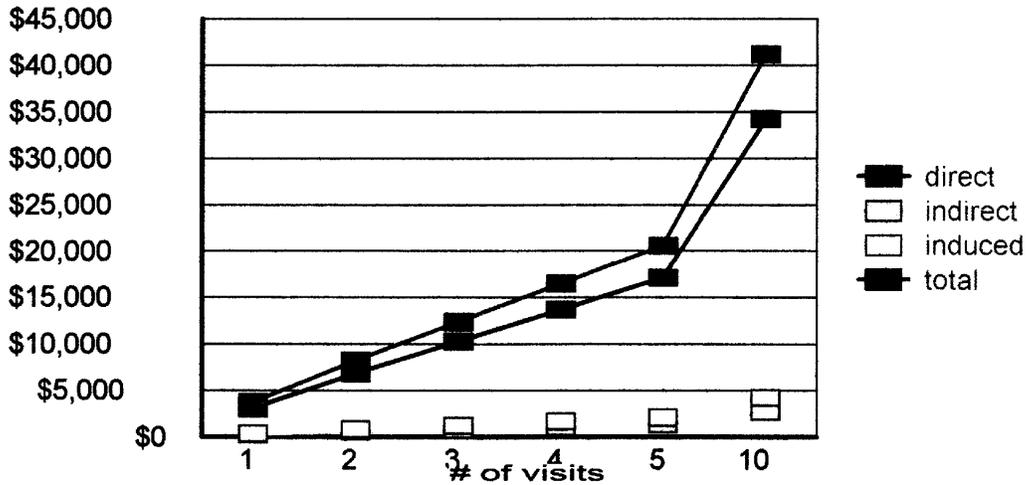
(3.) Induced Sales/Output Impact: MIG’s definition of induced sales/output is: (21)

“The response by an economy to an initial change (direct effect) that occurs through re-spending of income received by a component of value added. IMPLAN's default multiplier recognizes that labor income (employee compensation and proprietor income components of value added) is not a leakage to the regional economy. This money is re-circulated through the household spending patterns causing further local economic activity.”

b.) Income and Wages (personal income): Labor Income: MIG’s definition of labor income is: (22)

“ All forms of employment income, including employee compensation (wages and benefits) and Proprietor Income”

Economic Impact Personal Income



MIG Model



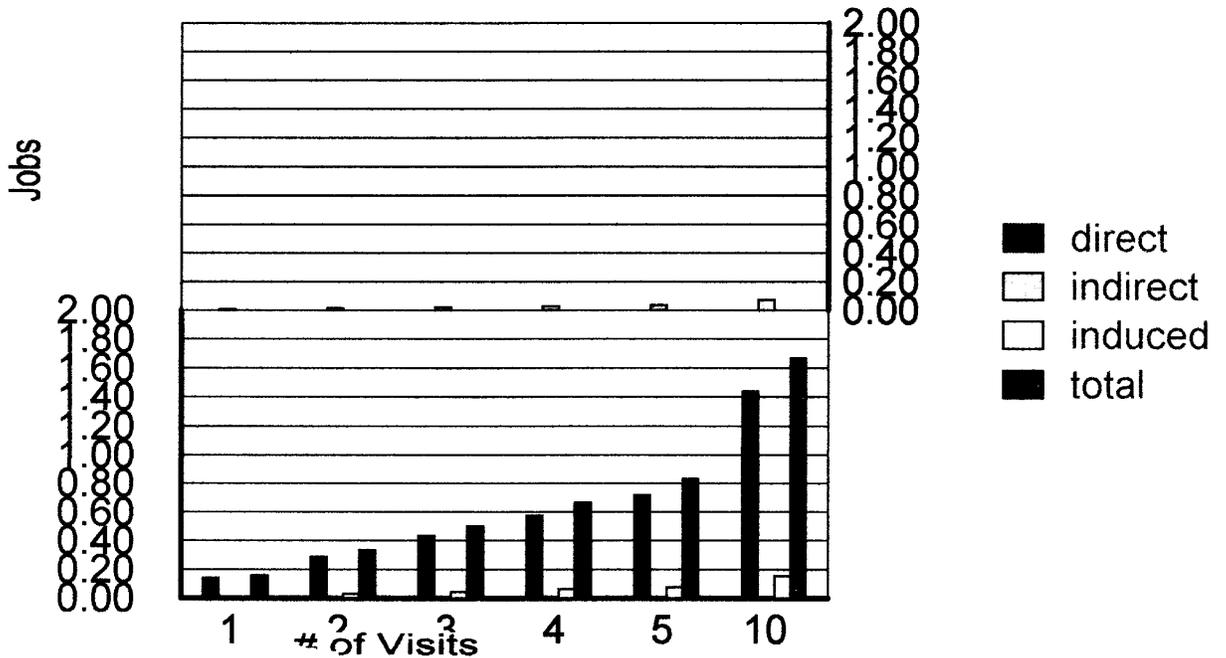
**Port-of-Call Project
Economic Impact: Personal Income
Grande Mariner Proforma Visits**

Visits	Direct	Indirect	Induced	Total
1	\$3,114.23	\$252.06	\$386.06	\$3,752.62
2	\$6,836.53	\$547.53	\$849.32	\$8,233.38
3	\$10,259.29	\$821.30	\$1,274.02	\$12,354.61
4	\$13,678.06	\$1,095.06	\$1,698.73	\$16,471.85
5	\$17,098.82	\$1,368.83	\$2,123.41	\$20,591.06
10	\$34,197.64	\$2,737.66	\$4,246.85	\$41,182.15

c.) **Employment:** Jobs required to produce the Sales / Output described above.

[This is a bipolar bar chart with the smallest range of numbers displayed as a separate graph in the upper half of the chart.]

Economic Impact Jobs



MIG Model

Port of Call Feasibility Study: Section IV: Economic Impact

Port-of-Call Project
Economic Impact: Employment Require to Produce Sales/Output
Grande Mariner Proforma Visits

Visits	Direct	Indirect	Induced	Total
1	0.138	0.007	0.014	0.159
2	0.288	0.015	0.031	0.334
3	0.432	0.022	0.047	0.501
4	0.576	0.030	0.062	0.668
5	0.720	0.037	0.078	0.835
10	1.440	0.074	0.156	1.670

C. Section Conclusions:

1. Cruise ships have a positive economic impact on ports-of-call.
 2. Great Lakes cruise ships are smaller, on average, than ocean cruises overall.
 3. The economic impact of smaller-ship cruise activity on Great Lakes ports-of-call is less dramatic than the impact on large ship ports, but is still significant and positive.
 4. The initial impact of cruise activity would generate direct revenues and direct costs. The direct costs are covered by the direct revenue, an ideal way to start such a program.
-

NOTES:

- Note 1: CLIA Source Book, 2010, CLIA, Pages 3 & 4
- Note 2: Business Research & Economic Advisors, "The Contribution of the North American Cruise Industry to the U.S. Economy in 2009" CLIA, Pages 43
- Note 3: Business Research & Economic Advisors, "The Contribution of the North American Cruise Industry to the U.S. Economy in 2009" CLIA, Page 72 & 89
- Note 4: Cruise Industry Overview - 2006: Florida-Caribbean Cruise Association: Economic Impact of Cruise Industry on Destinations: 2006; Page 7
- Note 5: Charting A Course: The Cruise Industry, the Government of Canada, and Purposeful Development: Ross A. Klein, PhD: September 2003: IBSN: 0-88627-331-5; Page 17
- Note 6: Economic Impact of Cruise Ship Passengers In Bar Harbor, Maine: REP Staff Paper 518: Gabe and McConnon; March 2003, Page 1

Port of Call Feasibility Study: Section IV: Economic Impact

- Note 7: Victoria's Cruise Ship Industry: Economic Benefits and their Environmental Impacts: Houlston and Daoust: Spring 2005, Page 4: \$88 Canadian dollars converted to \$65.71 US.
- Note 8: The Cruise Industry and British Columbia: Captain John Cox: The Maritime Group, Inc.: April 15, 2005, Slide 29: \$127 Canadian converted to \$94.83 US
- Note 9: Economic Impact of Cruise Ship Passengers In Portland, Maine: SOE Staff Paper 578: Gabe and McConnon; July 2009, Page 6
- Note 10: The Contribution of the North American Cruise Industry to the U.S. Economy in 2009: Cruise Lines International Association: Business Research & Economic Advisors: June 2010, Page 36
- Note 11: Cruise Industry Overview - 2006: Florida-Caribbean Cruise Association: Economic Impact of Cruise Industry on Destinations: 2006, Page 7
- Note 12: The Cruise Industry and British Columbia: Captain John Cox: The Maritime Group, Inc.: April 15, 2005, Slide 29: \$107 Canadian converted to \$79.90 US
- Note 13: Economic Impact of Cruise Ships in Maine: REP Staff Paper 558: CenTRO Staff Paper 102: Gabe and Allen; April 2006, Page 2
- Note 14: The Contribution of the North American Cruise Industry to the U.S. Economy in 2009: Cruise Lines International Association: Business Research & Economic Advisors: June 2010, Page 36
- Note 15: Economic Impact of Cruise Ship Passengers In Portland, Maine: SOE Staff Paper 578: Gabe and McConnon; July, 2009, Pages 5, 6, & 23
- Note 16: Likelihood of Cruise Ship Passenger Return to a Visited Port: Department of Resource Economics and Policy: Lynch, Gabe and McConnon, Page 11
- Note 17: Economic Impact of Cruise Ship Passengers In Portland, Maine: SOE Staff Paper 578: Gabe and McConnon; July 2009, Page 21
- Note 18: Economic Impact of Cruise Ship Passengers In Bar Harbor, Maine: REP Staff Paper 518: Gabe and McConnon; March 2003, Page 21
- Note 19: Minnesota IMPLAN Group, Inc: Glossary: 11/10/2010
http://implan.com/v4/index.php?option=com_glossary&task=list&glossid=13&letter=D
- Note 20: Minnesota IMPLAN Group, Inc: Glossary: 11/10/2010
http://implan.com/v4/index.php?option=com_glossary&task=list&glossid=13&letter=I
- Note 21: Minnesota IMPLAN Group, Inc: Glossary: 11/10/2010
http://implan.com/v4/index.php?option=com_glossary&task=list&glossid=13&letter=I
- Note 22: Minnesota IMPLAN Group, Inc: Glossary: 11/10/2010
http://implan.com/v4/index.php?option=com_glossary&task=list&glossid=13&letter=I

Port of Call Feasibility Study: Section IV: Economic Impact

Note 23: Economic Impact of Cruise Ship Passengers In Bar Harbor, Maine: REP Staff
Paper 518: Gabe and McConnon; March 2003, Table 15; Page 30

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Port of Call Feasibility Study: Section V: Action Plan Recommendations

V. Action Plan Recommendations:

- A. Create and execute marketing plan(s) to make East Tawas a regularly-scheduled port-of-call.
1. **Event-Based Marketing:** Continue working on the development of a cruise based on the spring migration of birds. Dovetail with the excellent efforts of the Au Sable Valley Audubon and its annual spring meeting.
 2. **Promote Tawas Bay as a port-of-call with currently active lines:** Maintain/establish communication with currently active lines. Each line needs a different strategy and presentation.
 3. **Recruit new lines:** There are small ship cruise lines active in ports near ocean-access points to the Great Lakes that are not active on the lakes. Establish communication with them and promote lake cruises to Tawas Bay/East Tawas.
 4. **Market East Tawas as part of a Lakes route:** Establish a relationship with other ports that would logically be along a route that included Tawas Bay. Our experience shows that it is difficult for a single port working alone to get traction with cruise lines.
 5. **Establish a relationship with embarkation and disembarkation ports for Great Lakes.** Strong embarkation ports and terminal destinations are needed to support cruise activity.
 6. **Advocate a wider effort to attract cruise activity to the Lakes:** Ontario has been such an advocate and the fruit of its efforts are seen in the Great Lakes region port list in Appendix I, Page 19.
 7. Support Michigan Port Collaborative Goals of:
 - a. Expanding freight transportation on the Lakes

Port of Call Feasibility Study: Section V: Action Plan Recommendations

- b. Restricting Federal Harbor Maintenance Trust Fund use to its stated purpose
 - c. Promoting passenger cruises
 - d. Advocating Great Lakes restoration
 - e. Preserving and sharing Michigan's rich natural and maritime heritage
- B. Work with the Michigan Department of Natural Resources and Environment (MDNRE) to enhance the State Dock for cruise ship activity.
- 1. Provide economic justification for proposed modifications to the East Tawas State Dock. The "unit of measure" or "objective function" for justification needs to be determined. A value-added method is described below.
 - a. **Value-Added Parity, Small Ships Outer Pier:** Small ship modifications to the East Tawas State Dock needed to accommodate small cruise ships (+/- 100 passengers) from Rowe Professional Services Company: "East Tawas State Harbor Preliminary Study" dated October 2010. (1)
 - (1). Cost estimate for mooring at the outer pier head is \$142,187.50 and can also be defined as "value added" to the dock.
 - (2.) This modification would open dock to mooring by smaller Great Lakes cruise ships such, as the Grande Mariner and Niagara Prince. (Appendix I)
 - (3.) Cruise activity in a port-of-call also adds value. The value added by a single visit of the Grand Mariner is \$5,536. (Appendix II)
 - (4.) It would take only 26 visits by ships of the Grand Mariner type to reach value-added parity.
 - (5.) Twenty-six visits is a large number when compared to current lake activity, but a small number for active cruise ports in other areas. For example, Bar Harbor, Maine reached 64 visits per

year and Portland, Maine reached 32 visits per year.

- b. **Value-Added-Parity, Large Ships:** Required larger ship modifications to the East Tawas State Dock from Rowe Professional Services Company: “East Tawas State Harbor Preliminary Study” dated October 2010. (1)
 - (1.) Cost estimate for mooring at the outer pier head is \$1.1 million and can also be defined as “value added” to the dock.
 - (2.) This modification would open the dock to mooring by larger Great Lakes cruise ships such as the under-construction Pearl Mist. (Appendix I and Page 3 of Section II)
 - (3.) Cruise activity in a port-of call also adds value. The value added by a single proforma visit of the Pearl Mist is \$11,163.
 - (4.) It would take only 94 visits by ships of a Pearl Mist type to reach value-added parity.
 - (5.) Again 99 visits is a large number when compared to current Lake activity, but a small number for active cruise ports in other areas. For example, Bar Harbor, Maine reached 64 visits per year and Portland, Maine reached 32 visits per year.
2. **Provide the additional information** requested by MDNRE in relationship to the Rowe Study.
 - a. Seek and obtain grant funding for the additional marine engineering information required by MDNRE
 - (1.) Littoral Drift
 - (2.) Wind and wave
 - (3.) Ice Conditions
 - b. Document displaced recreational use caused by adding cruise ship activity to the East Tawas State Dock

Port of Call Feasibility Study: Section V: Action Plan Recommendations

- c. Complete proforma plan including level of activity (number of ships) as cruise line recruiting and marketing plan progresses.
 3. **Pilot Commercial Dock Fee Program:** maintain focus and effort on supporting the pilot program developed to facilitate Charity Island Ferry activity and other commercial use of the Dock.
- D. **Establish a port-to-port ferry route from Thumb area port(s) to East Tawas.**
1. Obtain grant, funding for the start-up and initial boat modifications of existing active licensed commercial boat. Weekend schedule. (A three year, declining amount grant to share start-up fixed costs totaling under \$75,000)
 2. Participate and support Michigan's East Coast packet boat activity as suggested by MDNRE personnel.
- E. **New Advocate Needed:** This report completes the task assigned to the Port-of-Call Committee. A new group should be chartered soon to continue progress in this area. Volunteer soft match is an effective tool, but should not be the primary source of matching funds. Subsequent match must be based on more local funding and direct professional support.
- F. **Summary:** East Tawas, Tawas Bay and Iosco County make up a highly attractive area for tourism. A segment of this market can arrive on ships and has the potential to contribute **greatly** to the local and state economies. A series of small steps and relatively small investments are required to attract this group. These steps are achievable and should be pursued.

NOTES

Note 1: East Tawas State Harbor Final Report For mooring Great Lakes Cruise Ships at the East Tawas State Harbor; Rick Freeman; Rowe Professional Services Company and United Design Associates, Inc.; Job 2009-14; October 28, 2010; Page 4

C:\Users\David Wentworth\Desktop\POC Report\5_V_Recommendations.wpd

**Develop Iosco, Incorporated
City of East Tawas
Cruise Ship Feasibility Study**

APPENDIX I

**Cruise Lines and Cruise Active on the Great
Lakes**

Appendix I Index

<u>Item</u>	<u>Pages</u>
American Canadian Caribbean Cruise Line (AKA Blount Small Ship Adventures)	2 - 5
Hapag Lloyd AG	6 - 8
Pearl Seas Cruises	9 - 11
Travel Dynamics International	12 - 15
St. Lawrence Cruise Lines	16 - 18
Great Lakes Ports of Call	19

Port of Call Project
Active Great Lakes watershed Cruise Lines

Line: American Canadian Caribbean Line Inc.
Now known as: Blount Small Ship Adventures
461 Water Street
Post Office Box 368
Warren, Rhode Island 02885 USA
toll Free: 800-556-7450
voice: 401-247-0955
fax: 401-247-2350
E-mail: info@accl-smallships.com

Home port: Warren, Rhode Island

SHIP PROFILES

Item	Grande Mariner	Niagra Prince
Length	183'	175'
Beam	40'	40'
Draft	6' 6"	6' 3"
Passenger Capacity	98	66
Passenger Cabins	49	34
Commissioned	1998	1994
Refurbished		2009
Flag	USA	USA
Speed	10 knots	10 knots

The Grand Mariner and the Niagra Prince cruised the Great Lakes in 2010 and will return in 2011.

Port of Call Project: Feasibility Study: Appendix 1: Active Cruise Lines

Port of Call Project
Active Great Lakes Watershed Cruise Lines

American Canadian Caribbean Cruise Lines (aka Blount Small Ship Adventures)
Warren, Rhode Island, USA

2010

ACTIVITY SUMMARY

Date	Ships = 2	Cruise (note 3)	Embark	Disembark	Cruise Nights	Great Lakes Nights	Pass. Capacity	G.L. Pass. Nights @ capacity	Cruise Days	
05/23/10	06/07/10	Grande Mariner (1)	Warren	Chicago	15	10	98	980	16	
06/09/10	06/15/10	Grande Mariner (1)	Chicago	Chicago	6	6	98	588	7	
06/17/10	06/23/10	Grande Mariner (1)	Chicago	Chicago	6	6	98	588	7	
06/25/10	07/01/10	Grande Mariner (1)	Chicago	Chicago	6	6	98	588	7	
07/03/10	07/09/10	Grande Mariner (1)	Chicago	Chicago	6	6	98	588	7	
07/11/10	07/17/10	Grande Mariner (1)	Chicago	Chicago	6	6	98	588	7	
07/19/10	07/25/10	Grande Mariner (1)	Chicago	Chicago	6	6	98	588	7	
07/27/10	08/11/10	Grande Mariner (1)	Chicago	Warren	15	10	98	980	16	
05/10/10	05/21/10	Niagra Prince (2)	Nashville	Chicago	11	1	66	66	12	
05/24/10	06/07/10	Niagra Prince (2)	Chicago	New Orleans	14	1	66	66	15	
06/10/10	06/24/10	Niagra Prince (2)	New Orleans	Chicago	14	1	66	66	15	
06/27/10	07/12/10	Niagra Prince (2)	Chicago	Warren	15	10	66	660	16	
Cruises = 12					TOTALS	120	69	1,048	6,346	132

2011 information is shown on the next page.

- V
- V
- V
- V
- V
- V
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- V

Port of Call Project: Feasibility Study: Appendix 1: Active Cruise Lines

Port of Call Project
 Active Great Lakes Watershed Cruise Lines
 American Canadian Caribbean Cruise Lines (aka Blount Small Ship Adventures)
 Warren, Rhode Island, USA

2011

ACTIVITY SUMMARY

Date		Ships = 2	Cruise (note 10)	Embark	Disembark	Cruise Nights	Great Lakes Nights	Passenger Capacity	G.L. Pass. Nights @ capacity	Cruise Days
From	To									
05/18/11	06/02/11	Grande Mariner (8)	Great American Waterways (11)	Warren	Chicago	15	9	96	864	16
06/04/11	06/11/11	Grande Mariner (8)	Magical Lake Michigan (12)	Chicago	Chicago	7	7	96	672	8
06/14/11	06/29/11	Grande Mariner (8)	Great American Waterways (11)	Chicago	Warren	15	9	96	864	16
07/03/11	07/12/11	Grande Mariner (8)	Skylines & Islands (13)	New York	Toronto	9	4	96	384	10
07/14/11	07/23/11	Grande Mariner (8)	Discover Georgian Bay (14)	Toronto	Toronto	9	8	96	768	10
07/25/11	08/03/11	Grande Mariner (8)	Discover Georgian Bay (14)	Toronto	Toronto	9	8	96	768	10
08/05/11	08/14/11	Grande Mariner (8)	Skylines & Islands (13)	Toronto	New York	9	4	96	384	10
08/16/11	08/25/11	Grande Mariner (8)	Skylines & Islands (13)	New York	Toronto	9	4	96	384	10
08/27/11	09/05/11	Grande Mariner (8)	Discover Georgian Bay (14)	Toronto	Toronto	9	9	96	864	10
09/07/11	09/16/11	Grande Mariner (8)	Discover Georgian Bay (14)	Toronto	Toronto	9	9	96	864	10
09/18/11	09/27/11	Grande Mariner (8)	Skylines & Islands (13)	Toronto	New York	9	4	96	384	10
06/29/11	07/10/11	Niagara Prince (9)	Historic Rivers: Leg 3 (15)	Nashville	Chicago	11	2	68	136	12
07/13/11	07/27/11	Niagara Prince (9)	Chicago to Big Easy (16)	Chicago	New Orleans	14	1	68	68	15
07/30/11	08/13/11	Niagara Prince (9)	Big Easy to Chicago (16)	New Orleans	Chicago	14	1	68	68	15
08/16/11	08/23/11	Niagara Prince (9)	Magical Lake Michigan (12)	Chicago	Chicago	7	7	68	476	8
08/25/11	09/01/11	Niagara Prince (9)	Magical Lake Michigan (12)	Chicago	Chicago	7	7	68	476	8
09/03/11	09/10/11	Niagara Prince (9)	Magical Lake Michigan (12)	Chicago	Chicago	7	7	68	476	8
09/12/11	09/27/11	Niagara Prince (9)	Great American Waterways (11)	Chicago	Warren	15	9	68	612	16
		Cruises = 18								
					TOTALS	184	109	1532	9512	202
					% INCREASE		40	484	3166	70
							58.0%	46.2%	49.9%	101.5%

Footnotes to Table Appendix I - 1

- | Note | Reference |
|-------------|---|
| (1) | 2010 Cruise Catalog, American Canadian Caribbean Line, The Small Ship Cruise Line, Warren Rhode, Island, Page 23 |
| (2) | 2010 Cruise Catalog, American Canadian Caribbean Line, The Small Ship Cruise Line, Warren Rhode, Island, Page 25 |
| (3) | http://www.accl-smallships.com/Schedule.cfm |
| (4) | 2010 Cruise Catalog, American Canadian Caribbean Line, The Small Ship Cruise Line, Warren Rhode, Island, Page 12 |
| (5) | 2010 Cruise Catalog, American Canadian Caribbean Line, The Small Ship Cruise Line, Warren Rhode, Island, Page 11 |
| (6) | 2010 Cruise Catalog, American Canadian Caribbean Line, The Small Ship Cruise Line, Warren Rhode, Island, Page 8 |
| (7) | 2010 Cruise Catalog, American Canadian Caribbean Line, The Small Ship Cruise Line, Warren Rhode, Island, Page 9 |
| (8) | Cruise Catalog 2011, Blount Small Ship Adventures, Go where the big ships cannot, Warren, Rhode Island, Page 36 |
| (9) | Cruise Catalog 2011, Blount Small Ship Adventures, Go where the big ships cannot, Warren, Rhode Island, Pages 16 through 27 |
| (10) | Cruise Catalog 2011, Blount Small Ship Adventures, Go where the big ships cannot, Warren, Rhode Island, Page 38 |
| (11) | Cruise Catalog 2011, Blount Small Ship Adventures, Go where the big ships cannot, Warren, Rhode Island, Page 19 |
| (12) | Cruise Catalog 2011, Blount Small Ship Adventures, Go where the big ships cannot, Warren, Rhode Island, Page 20 |
| (13) | Cruise Catalog 2011, Blount Small Ship Adventures, Go where the big ships cannot, Warren, Rhode Island, Page 22 |
| (14) | Cruise Catalog 2011, Blount Small Ship Adventures, Go where the big ships cannot, Warren, Rhode Island, Page 21 |
| (15) | Cruise Catalog 2011, Blount Small Ship Adventures, Go where the big ships cannot, Warren, Rhode Island, Page 16 |
| (16) | Cruise Catalog 2011, Blount Small Ship Adventures, Go where the big ships cannot, Warren, Rhode Island, Page 18 |

Port of Call Project
Active Great Lakes watershed Cruise Lines

Line: Hapag-Lloyd AG
Hapag-Lloyd (America) Inc Tri State
399 Hoes Lane
Piscataway, New Jersey 08854 USA

voice: 732-562-1800

fax: 732-885-7345

E-mail:

Home port:

SHIP PROFILES

Item	MS COLUMBUS
Length	144 meters (472' 5.00")
Beam	21.50 meters (70' 6.45")
Draft	5 meters (16' 4.85")
Passenger Capacity	420
Passenger Cabins	197/8
Commissioned	1997
Flag	Bahamas
Speed	18.5 knots

The MV Columbus returns to the Great Lakes in 2011.

Port of Call Project
Active Great Lakes Watershed Cruise Lines

Hapog-Lloyd AG
2010

ACTIVITY SUMMARY

Date		Ship = 0	Cruise = 0 (note 1)		Embark	Disembark	Cruise Nights	Great Lakes Nights	Pass. Capacity	G.L. Pass. capacity @	Cruise Days
From	To		Embark	Disembark							
none	none	none	none	none	none	none	none	none	none	none	none
				TOTALS	none	none	none	none	none	none	none

2011

ACTIVITY SUMMARY

Date		Ship = 1	Cruise = 4 (note 2)		Embark	Disembark	Cruise Nights	Great Lakes Nights	Pass. Capacity	G.L. Pass. capacity @	Cruise Days
From	To		Embark	Disembark							
09/05/11	09/18/11	MS Columbus	Seaway (3)	Toronto	Toronto	2	2	420	840	18	
09/18/11	10/01/11	MS Columbus	Indian Summer (4)	Toronto	Chicago	12	12	420	5,040	13	
10/01/11	10/19/11	MS Columbus	Indian Summer (4) Seaway (3)	Chicago	Toronto	12	12	420	5,040	13	
				Toronto	Miami	2	2	420	840	18	
				TOTALS		26	26	294	11,760	62	
				\$ INCREASE		na	na	na	na	na	
				% INCREASE		na	na	na	na	na	

Footnotes to Table Appendix 1 - 2

Note Reference

- 1 One of two Great Lakes cruise ships pulling out in 2008; The Cleveland Plain Dealer; August 26, 2007
- 2 <http://www.hlkf.de/redwork/do.php?layoutid=100&node=191441&language=2#>
- 3 <http://www.hlkf.de/redwork/do.php?layoutid=100&node=191441&language=2#>
- 4 <http://www.hlkf.de/redwork/do.php?layoutid=111&node=206549&language=2&page=5&iid=2943&tid=633>

Port of Call Project
Active Great Lakes watershed Cruise Lines

Line: Pearl Seas Cruises, Inc.
741 Boston Post Road
Suite 250
Guilford, CT 06437
Toll-Free: 800-983-7462
voice: 203-453-5026
fax: 203-453-1877
E-mail: [Www.pearlseascruises.com](http://www.pearlseascruises.com)

SHIP PROFILES

Item	Pearl Mist
Length	335' (100 meters)
Beam	56' (17 meters)
Draft	12' (3.1 meters)
Passenger Capacity	210
Passenger Cabins	108
Commissioned	2008
Flag	Republic of the Marshal Islands
Speed	unknown

<http://www.cruising.org/vacation/cruiseline/pearl-seas-cruises/ships/pearl-mist>

Port of Call Project: Feasibility Study: Appendix 1: Active Cruise Lines

Port of Call Project	
Active Great Lakes Watershed Cruise Lines	
Pearl Seas Cruises	
Guilford, CT, USA	

2010

Date		Ship = 1	Cruise (note 1)	Embark	Disembark	Cruise Nights	Great Lakes Nights	Pass. Capacity	Pass. Nights @ capacity	Cruise Days	
From	To										
06/19/10	06/25/10	Pearl Mist (2)	St. Lawrence Seaway & Thousand Islands (4)	Quebec	Toronto	7	2	210	420	8	
06/26/10	07/05/10	Pearl Mist (3)	Great Lakes & Georgian Bay (5)	Toronto	Chicago	11	11	210	2,310	12	
07/06/10	07/16/10	Pearl Mist (3)	Great Lakes & Georgian Bay (5)	Chicago	Toronto	11	11	210	2,310	12	
07/17/10	07/23/10	Pearl Mist (2)	St. Lawrence Seaway & Thousand Islands (4)	Toronto	Quebec	7	2	210	420	8	
10/02/10	10/08/10	Pearl Mist (2)	St. Lawrence Seaway & Thousand Islands (4)	Quebec	Toronto	7	2	210	420	8	
10/09/10	07/17/10	Pearl Mist (2)	St. Lawrence Seaway & Thousand Islands (4)	Toronto	Quebec	7	2	210	420	8	
cruises = 6						TOTALS	50	30	1,260	6,300	56

2011

Date		Ship = 1	Cruise (note 6)	Embark	Disembark	Cruise Nights	Great Lakes Nights	Pass. Capacity	Pass. Nights @ capacity	Cruise Days	
From	To										
06/13/11		Pearl Mist (6)	St. Lawrence Seaway & Thousand Islands (8)	Quebec	Toronto	7	2	210	420	8	
06/24/11		Pearl Mist (7)	Great Lakes & Georgian Bay (9)	Toronto	Chicago	11	11	210	2,310	12	
07/05/11		Pearl Mist (7)	Great Lakes & Georgian Bay (9)	Chicago	Toronto	11	11	210	2,310	12	
07/16/11		Pearl Mist (6)	St. Lawrence Seaway & Thousand Islands (8)	Toronto	Quebec	7	2	210	420	8	
10/01/11		Pearl Mist (6)	St. Lawrence Seaway & Thousand Islands (8)	Quebec	Toronto	7	2	210	420	8	
10/08/11		Pearl Mist (6)	St. Lawrence Seaway & Thousand Islands (8)	Toronto	Quebec	7	2	210	420	8	
cruises = 6						TOTALS	50	30	1,260	6,300	56
						% INCREASE	0	0	0	0	0.0%

ACTIVITY SUMMARY

Footnotes to Table Appendix 1 - 2

Note	Reference
(1)	http://www.pearlseascruises.com/store.php?crm=208 &PHPSESSID=cde9471dcece9f655e71b05974655543c
(2)	http://www.pearlseascruises.com/store.php?crm=229
(3)	http://www.pearlseascruises.com/store.php?crm=435
(4)	http://www.pearlseascruises.com/store.php?crm=229
(5)	http://www.pearlseascruises.com/store.php?crm=208
(6)	http://www.pearlseascruises.com/store.php?crm=229
(7)	http://www.pearlseascruises.com/store.php?crm=435
(8)	http://www.pearlseascruises.com/store.php?crm=229
(9)	http://www.pearlseascruises.com/store.php?crm=435

Port of Call Project: Feasibility Study: Appendix 1: Active Cruise Lines

Typical Fare Per Day
 Pearl Seas Cruise Lines
 The Pearl Mist
 2010

Cruise Length	Class: Fare per Cruise per Passenger							Total
	G	H	K	L	R	Single		
8 day / 7 night	\$3,955	\$4,335	\$4,575	\$4,715	\$5,295	\$5,795	-	
11 day / 10 night	\$5,605	\$6,190	\$6,535	\$6,730	\$7,500	\$8,105	-	
12 day / 11 night	\$6,165	\$6,790	\$7,180	\$7,410	\$8,250	\$8,915	-	
15 day / 14 night	\$7,140	\$8,410	\$8,690	\$9,105	\$10,080	\$10,230	-	
Total	\$22,865	\$25,725	\$26,980	\$27,960	\$31,125	\$33,045	-	
Average / day	\$497.00	\$559.00	\$587.00	\$608.00	\$677.00	\$718.00	-	
Average / day	\$0	\$62	\$28	\$21	\$69	\$41	-	
% of G Class	0.0%	12.5%	5.6%	4.2%	13.9%	8.2%	-	
Total # of Days	46	-	-	-	-	-	-	
Total # of Nights	42	-	-	-	-	-	-	
Passengers	210	-	-	-	-	-	-	
Staterooms	27	32	16	14	8	11	108	
Passengers / Room	2	2	2	2	2	1	1	
Passengers	54	64	32	28	16	11	205	
Triple Option	1	1	1	1	1	0	5	
Total Passengers	55	65	33	29	17	11	210	
Total Revenue / Day	\$27,335	\$36,335	\$19,371	\$17,632	\$11,509	\$7,898	\$120,080	

Port of Call Project

Active Great Lakes watershed Cruise Lines

Line: Travel Dynamics International
132 East 70th Street
New York, New York 10021 USA
toll Free: 800-257-5767
voice: 212-517-7555
fax: 212-774-1560
E-mail: info@traveldynamicsinternational.com

President: George Papagapitos
Co-President: Vasos Papagapitos

SHIP PROFILES

Item	Clelia II
Length	290'
Beam	50'
Draft	12'
Passenger Capacity	100
Passenger Cabins	50
Commissioned	1990
Refurbished	1996/2006
Flag	Malta
Speed	15 knots

Only the Clelia II I cruised the Great Lakes in 2010, but will not return in 2011. Travel Dynamics has no current plans to return to the lakes. The owner of the Clelia II, Goodwin Sands Marine Ltd has entered into a long-term charter arrangement with Orion Expedition Cruises who will rename the ship: Orion II. ([Http://www.nederuise.info/clelia%20II.htm](http://www.nederuise.info/clelia%20II.htm)) (5)

Port of Call Project: Feasibility Study: Appendix 1: Active Cruise Lines

Port of Call Project
 Active Great Lakes Watershed Cruise Lines
 Travel Dynamics International, Incorporated
 New York, New York

2010

ACTIVITY SUMMARY

Date		Ship = 1	Cruise (note 1)	Embark	Disembark	Cruise Nights	Great Lakes Nights	Pass. Capacity	Pass. Nights @ capacity	Cruise Days	
From	To										
06/07/10	06/19/10	Clelia II (2)	Canada's Historic Cities & Waterways (3)	East Coast	Toronto	12	2	100	200	12	
06/19/10	06/26/10	Clelia II (2)	The Great Lakes (4) Music	Toronto	Duluth	7	7	100	700	8	
06/26/10	07/03/10	Clelia II (2)	The Great Lakes (4)	Duluth	Toronto	7	7	100	700	8	
07/03/10	07/10/10	Clelia II (2)	The Great Lakes (4) Family	Toronto	Duluth	7	7	100	700	8	
07/10/10	07/17/10	Clelia II (2)	The Great Lakes (4)	Duluth	Toronto	7	7	100	700	8	
07/17/10	07/24/10	Clelia II (2)	The Great Lakes (4) Photo	Toronto	Duluth	7	7	100	700	8	
07/24/10	07/31/10	Clelia II (2)	The Great Lakes (4) Family	Duluth	Toronto	7	7	100	700	8	
08/28/10	09/04/10	Clelia II (2)	The Great Lakes (4) Music	Toronto	Duluth	7	7	100	700	8	
09/04/10	09/11/10	Clelia II (2)	The Great Lakes (4) Technology	Duluth	Toronto	7	7	100	700	8	
09/11/10	09/18/10	Clelia II (2)	The Great Lakes (4) Photo	Toronto	Duluth	7	7	100	700	8	
09/18/10	09/25/10	Clelia II (2)	The Great Lakes (4) Health & Wellness	Duluth	Toronto	7	7	100	700	8	
09/25/10	10/04/10	Clelia II (2)	Lake Ontario to Newfoundland (3)	Toronto	East Coast	9	2	100	200	10	
cruises = 12						TOTALS	91	74	1,200	7,400	102

2011

ACTIVITY SUMMARY

Date		Ship	Cruise (note 5)	Embark	Disembark	Cruise Nights	Great Lakes Nights	Pass. Capacity	Pass. Nights @ capacity	Cruise Days
From	To									
none	none	none	none	none	none	0	0	100	0	0
---	---	---	---	---	TOTALS	0	0	0	0	0
---	---	---	---	---	Inc/Dec	-91	-74	-1200	-7400	-102
---	---	---	---	---	% INCREASE	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%

Footnotes for Travel Dynamics

note Reference

- (1) The Great Lakes, Cruising Through North America's Magnificent Inland Seas, 2010: Travel Dynamics International: Page 7
- (2) The Great Lakes, Cruising Through North America's Magnificent Inland Seas, 2010: Travel Dynamics International: Cover Page
- (3) The Great Lakes, Cruising Through North America's Magnificent Inland Seas, 2010: Travel Dynamics International: Page 10
- (4) The Great Lakes, Cruising Through North America's Magnificent Inland Seas, 2010: Travel Dynamics International: Page 7
- (5) email correspondence

Port of Call Project

Active Great Lakes watershed Cruise Lines

Line: St. Lawrence Cruise Lines, Inc.
Suite 200, 253 Ontario Street
Kingston, Ontario, Canada
K7L 2Z4
Toll-Free: 800-267-7868
voice: 613-549-8091
E-mail: info@StLawrenceCruiseLines.com
Home port: Kingston, Ontario

SHIP PROFILES

Item	M V Canadian Empress
Length	108'
Beam	30'
Draft	4' 9"
Passenger Capacity	66
Passenger Cabins	35
Commissioned	1981
Flag	Canadian
Speed	7.5 knots

The St. Lawrence Cruise Lines Inc. activity is not included as part of the data used to complete this report. It is included in this Appendix to provide information about active cruise business on the margins of the Great Lakes.

Port of Call Project: Feasibility Study: Appendix 1: Active Cruise Lines

Port of Call Project
Active Great Lakes Watershed Cruise Lines

St. Lawrence Cruise Lines
Kingston, Ontario, Canada

ACTIVITY SUMMARY

Cruise Name	1	2	3	4	5	6	7	8	9	10	All
Days	7	3	4	4	4	6	6	7	7		48
Nights	6	2	3	3	3	5	5	6	6		39
Number of Cruises	1	3	9	7	7	4	4	3	3	4	45
Port/attraction											
Ottawa	E (*)					E	E				
Lumberland	Overnight					Overnight	Attraction				
Machine (Montreal)	Overnight					Overnight	Overnight		Overnight		
Upper Canadian Village	Overnight			Overnight		Overnight	Overnight		Overnight		
Brockville	Overnight	Attraction	Overnight	Attraction	Overnight	Overnight	Overnight	Overnight	Overnight		
Lockport	Overnight	Overnight	Overnight	Attraction	Attraction			Attraction	Overnight		
Kingston	D (**)	E & D	E & D	E	D	D	D	E	D		
Mananque	Attraction										
Hull	Attraction					Attraction					
Port Wellington	Attraction			Attraction	Attraction	Attraction	Attraction	Attraction	Attraction		
Carillon Lock	Attraction					Overnight	Attraction				
000 Island Anchorage		Overnight	Overnight	Overnight			Overnight	Overnight	Attraction		
Mananque		Attraction				Attraction	Attraction				
Hydeck		Attraction	Attraction								
Resort			Attraction								
Porteau Landing				Overnight	Attraction	Attraction	Overnight	Overnight	Attraction		
Montreal				D	E	Attraction	Attraction	Overnight	Attraction		
Trois Rivières				Attraction	Attraction			Overnight	Overnight		
Cap De Madelenline				Attraction	Attraction			Attraction	Overnight		
Quebec City				Attraction	Attraction						
Montebello						Attraction		D	Overnight		
Footnote	1	2	3	4	5	6	7	8	9		

Port of Call Project: Feasibility Study: Appendix 1: Active Cruise Lines

<u>Ref #</u>	<u>Abbrev</u>	<u>Name</u>
1	C of S	Ottawa to Kingston: Celebration of Spring
2	TIW	Kingston and Return: Thousand Island Weekender
3	TIE	Kingston and Return: Thousand Island Extravaganza
4	HWE	Kingston to Montreal: Heritage Waterway East
5	HWW	Montreal to Kingston: Heritage Waterway West
6	CCap S	Ottawa to Kingston: Canada's Capital Cruise South
7	CCap N	Kingston to Ottawa: Canada's Capital Cruise North
8	CCE	Kingston to Quebec City: Canadian Connection Cruise East
9	CCW	Quebec City to Kingston: Canadian Connection Cruise West
10	O or C	Other or charter

Port of Call Project: Feasibility Study: Appendix 1: Active Cruise Lines

**Port of Call Project
Great Lakes Ports of Call
2010 and 2011**

<u>Port</u>	<u>State</u>	<u>Country</u>	<u>Line</u>
Chicago	Il	USA	Hapag-Lloyd
Chicago	Il	USA	Pearl Seas
Holland	Mi	USA	Pearl Seas
Mackinac Island	Mi	USA	Pearl Seas
Beaver Island	MI	USA	ACCL/BSSA
Detroit	MI	USA	ACCL/BSSA
Holland	MI	USA	ACCL/BSSA
Mackinac Island	MI	USA	Hapag-Lloyd
Mackinac Island	MI	USA	ACCL/BSSA
Manistee	MI	USA	ACCL/BSSA
Sault Ste Marie	MI	USA	ACCL/BSSA
Traverse City	MI	USA	Hapag-Lloyd
Wyandotte	MI	USA	ACCL/BSSA
Duluth	MN	USA	Hapag-Lloyd
Buffalo	NY	USA	ACCL/BSSA
Oswego	NY	USA	ACCL/BSSA
Cleveland	OH	USA	ACCL/BSSA
Blueberry Inland	Ont	Canada	ACCL/BSSA
Goderich	Ont	Canada	ACCL/BSSA
Hamilton	Ont	Canada	ACCL/BSSA
Kingston	Ont	Canada	ACCL/BSSA
Kingston	Ont	Canada	Pearl Seas
Little Current	Ont	Canada	ACCL/BSSA
Little Current	Ont	Canada	Hapag-Lloyd
Little Current	Ont	Canada	Pearl Seas
Midland	Ont	Canada	ACCL/BSSA
Midland	Ont	Canada	Pearl Seas
Parry Sound	Ont	Canada	Pearl Seas
Port Weller	Ont	Canada	ACCL/BSSA
Sault Ste Marie	Ont	Canada	Hapag-Lloyd
Thunder Bay	Ont	Canada	Hapag-Lloyd
Toronto	Ont	Canada	Pearl Seas
Toronto	Ont	Canada	Hapag-Lloyd
Toronto	Ont	Canada	ACCL/BSSA
Toronto	Ont	Canada	Pearl Seas
Windsor	Ont	Canada	Pearl Seas
Windsor	Ont	Canada	Hapag-Lloyd
Erie	PA	USA	ACCL/BSSA
Manitowoc	WI	USA	ACCL/BSSA
Milwaukee	WI	USA	ACCL/BSSA
Sturgeon Bay	WI	USA	ACCL/BSSA

C:\Users\David Wentworth\Desktop\POC Report\appendix I_ Cruise Lines.wpd

**Develop Iosco, Incorporated
City of East Tawas
Cruise Ship Feasibility Study**

APPENDIX II

**IMPLAN DATA
Appendix II Index**

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Estimate of Impact on East Tawas of a Single Port of Call visit by a Cruise Ship (MSU Methodology)	
Estimated Spending by Ship	5
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Spending by Category (active Great Lakes Ships)	19
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Proforma Great Lakes Impact of 2011 Port of Call Visits

**Port of Call Project
Appendix II**

**Great Lakes Economic
Impact Indicator Calculation**

**Average In Port Spending
from Table IV-3**

Ship	Spending	# going Ashore
Niagara Prince	\$9,587.70	86
Grande Mariner	\$10,486.26	94
MS Columbus	\$42,927.20	402
<u>Pearl Mist</u>	<u>\$21,146.44</u>	<u>196</u>
Total	\$84,147.60	778
Average	\$21,036.90	195
Avg per person	\$108.16	

The Average spending per ship is used in conjunction with the number of Great Lakes nights use as the number of port-of-call visits. The number of Great Lakes Cruise Nights / Port-of-Call Visits is 165 from Table II - 3

Michigan State University's Michigan State-wide Economic Impact Calculator from (<https://www.msu.edu/course/prr/840/econimpact/michigan/ecimpadjavastate.html>) is displayed on the following 3 pages.

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Michigan Economic Impact Calculator - Statewide analysis

INSTRUCTIONS

Visits: Enter the number of visitors in party nights and the percentage of these visits for each of the five segments. Enter percentages as whole numbers, e.g. 50 for 50%. The percents must sum to 100.

Spending Averages: Enter spending average for each segment in dollars per party per night. Change the default values by selecting the cell and entering a new spending average.

Multipliers: This version uses multipliers from the Michigan statewide economic model. If estimating impacts for a smaller economy, choose the area or versions.

Press the Estimate Impacts button to compute spending and economic impacts. Results are shown below. To try another scenario change any of the inputs and press the Estimate Impacts button again.

Visits in Party nights:	165				
Motel:	0	%	Spending Averages (\$ per party night)		
Camper:	0	%	Motel:	\$	
Seasonal Home:	0	%	Camper:	\$	
Stay with FR:	0	%	Seasonal Home:	\$	
Day Visitor:	100	%	Stay with FR:	\$	
			Day Visitor:	\$ 21036.90	
<input type="button" value="Estimate Impacts"/>					

Results are shown below :

- - Total spending by segment
- - Direct Effects
- - Economic impact summary
-

Part of Call Feasibility Study
 Appendix II: IMPLAN Data
 Great Lakes Impact
 Page 2

Table 1: Total Tourist Spending by Lodging Segment

Spending Category	Motel	Camp	Seasonal Home	Stay with FR	Day Visitor	Total
Motel, hotel, cabin or B&B	0	0	0	0	0	0
Camping Fees	0	0	0	0	0	0

Restaurants & bars	0	0	0	0	909425	909425
Groceries, take-out food/drinks	0	0	0	0	256861	256861
Gas & Oil	0	0	0	0	530382	530382
Other vehicle expenses	0	0	0	0	20132	20132
Airfares, bus, rail, taxi, ferry	0	0	0	0	63521	63521
Admissions & fees	0	0	0	0	438746	438746
Clothing	0	0	0	0	290183	290183
Sporting goods	0	0	0	0	22215	22215
Gambling	0	0	0	0	37488	37488
Souvenirs and other expenses	0	0	0	0	902136	902136
Total	0	0	0	0	3471089	3471089

Table 2: Direct Effects

Spending Category	Sales	Jobs	Income	Value Added
Motel, hotel, cabin or B&B	0	0	0	0
Camping Fees	0	0	0	0
Restaurants & bars	909425	28	318935	444345
Groceries, take-out food/drinks	32056	0	4969	9764
Gas & Oil	73617	0	3710	9990
Other vehicle expenses	20132	0	9500	15272
Airfares, bus, rail, taxi, ferry	63521	2	37065	43626
Admissions & fees	438746	13	154482	252849
Clothing	12130	0	3974	4708
Sporting goods	1206	0	330	622
Gambling	37488	1	13200	21604
Souvenirs and other expenses	17411	0	4522	7875
Retail Trade	762665	21	389035	607691
Wholesale Trade	114581	1	46486	79198
Total	2482978	68	986208	1497546

Table 3: Economic Impacts On Michigan Economy

Economic Measure	Direct Effects	Multiplier	Total Effects
Output/Sales	2482978	1.595	3961393
Personal Income	986208	1.528	1506913
Total Value Added	1497546	1.591	2383201
Jobs	68	1.283	87
Total Visitor Spending	3471089		
Capture Rate	72	%	
Effective spending multiplier	1.149		

Summary of Results

165 visitor party nights in the area resulted in \$3471089 total spending. 72% of this spending was captured by the local economy yielding \$2482978 in direct sales to tourism-related firms. These sales generated \$986208 in direct personal income, \$1497546 direct value added and supported 68 direct jobs. Every dollar of direct sales yielded 1.595 in total sales effects including indirect and induced effects. With multiplier effects tourist spending resulted in \$3961393 total sales, \$1506913 in total personal income, \$2383201 total value added and supported 87 jobs.

Impact of Spending by Ship

**Port of Call Project
Appendix II**

**Great Lakes Economic
Impact Indicator Calculation**

**Spending By Ship per Visit
from Table IV-3**

Ship	Spending	# going Ashore per Visitor	Average
Niagara Prince	\$9,587.70	86	\$111.48
Grande Mariner	\$10,486.26	94	\$111.56
MS Columbus	\$42,927.20	402	\$106.78
<u>Pearl Mist</u>	<u>\$21,146.44</u>	<u>196</u>	<u>\$107.89</u>
Total	\$84,147.60	778	
Average	\$21,036.90	195	
Avg per person	\$108.16		

The Average spending per ship is used to estimate the impact of a single port-of-call visit by that ship. The input information is from Table II - 3

Michigan State University's Michigan Economic Impact Calculator-Rural from (<https://www.msu.edu/course/prr/840/econimpact/michigan/ecimpadjavastate.html>) is displayed on the following pages.

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Michigan Economic Impact Calculator - Rural Regions

INSTRUCTIONS

Visits: Enter the number of visitors in party nights and the percentage of these visits for each of the five segments. Enter percentages as whole numbers, e.g. 50 for 50%. The percents must sum to 100.

Spending Averages: Enter spending average for each segment in dollars per party per night. Change the default values by selecting the cell and entering a new spending average.

Multipliers: This version uses multipliers for a generic rural region of Michigan. Choose the area or state versions for larger multipliers.

Press the Estimate Impacts button to compute spending and economic impacts. Results are shown below. To try another scenario change any of the inputs and press the Estimate Impacts button again.

Visits in Party nights: 86			Spending Averages (\$ per party night)		
Motel:	0	%	Motel:	\$	
Camper:	0	%	Camper:	\$	
Seasonal Home:	0	%	Seasonal Home:	\$	
Stay with FR:	0	%	Stay with FR:	\$	
Day Visitor:	100.	%	Day Visitor:	\$ 111.48	

Estimate Impacts

Port of Call Feasibility Study
 Appendix II: IMPLAN Data
 Niagara Pricne Econ. Impact
 Page 6

Results are shown below :

- Total spending by segment
- Direct Effects
- Economic impact summary
- Multiplier effects

Table 1: Total Tourist Spending by Lodging Segment

Spending Category	Motel	Camp	Seasonal Home	Stay with FR	Day Visitor	Total
Motel, hotel, cabin or B&B	0	0	0	0	0	0
Camping Fees	0	0	0	0	0	0

Restaurants & bars	0	0	0	0	2512	2512
Groceries, take-out food/drinks	0	0	0	0	709	709
Gas & Oil	0	0	0	0	1465	1465
Other vehicle expenses	0	0	0	0	56	56
Airfares, bus, rail, taxi, ferry	0	0	0	0	175	175
Admissions & fees	0	0	0	0	1212	1212
Clothing	0	0	0	0	801	801
Sporting goods	0	0	0	0	61	61
Gambling	0	0	0	0	104	104
Souvenirs and other expenses	0	0	0	0	2492	2492
Total	0	0	0	0	9587	9587

Table 2: Direct Effects

Spending Category	Sales	Jobs	Income	Value Added
Motel, hotel, cabin or B&B	0	0	0	0
Camping Fees	0	0	0	0
Restaurants & bars	2512	0	782	1090
Groceries, take-out food/drinks	22	0	3	6
Gas & Oil	0	0	0	0
Other vehicle expenses	56	0	16	25
Airfares, bus, rail, taxi, ferry	175	0	88	103
Admissions & fees	1212	0	396	648
Clothing	0	0	0	0
Sporting goods	0	0	0	0
Gambling	104	0	34	56
Souvenirs and other expenses	48	0	11	19
Retail Trade	2106	0	1074	1678
Wholesale Trade	316	0	127	216
Total	6552	0	2530	3840

Table 3: Economic Impacts On Regional Economy

Economic Measure	Direct Effects	Multiplier	Total Effects
Output/Sales	6552	1.308	8568
Personal Income	2530	1.267	3207
Total Value Added	3840	1.318	5061
Jobs	0	1.157	0
Total Visitor Spending	9587		
Capture Rate	68	%	
Effective spending multiplier	0.889		

Summary of Results

86 visitor party nights in the area resulted in \$9587 total spending. 68% of this spending was captured by the local economy yielding \$6552 in direct sales to tourism-related firms. These sales generated \$2530 in direct personal income, \$3840 direct value added and supported 0 direct jobs. Every dollar of direct sales yielded 1.308 in total sales effects including indirect and induced effects. With multiplier effects tourist spending resulted in \$8568 total sales, \$3207 in total personal income, \$5061 total value added and supported 0 jobs.

Michigan Economic Impact Calculator - Rural Regions

INSTRUCTIONS

Visits: Enter the number of visitors in party nights and the percentage of these visits for each of the five segments. Enter percentages as whole numbers, e.g. 50 for 50%. The percents must sum to 100.

Spending Averages: Enter spending average for each segment in dollars per party per night. Change the default values by selecting the cell and entering a new spending average.

Multipliers: This version uses multipliers for a generic rural region of Michigan. Choose the area or state versions for larger multipliers.

Press the Estimate Impacts button to compute spending and economic impacts. Results are shown below. To try another scenario change any of the inputs and press the Estimate Impacts button again.

Visits in Party nights: 94			Spending Averages (\$ per party night)	
Motel:	0	%	Motel:	\$
Camper:	0	%	Camper:	\$
Seasonal Home:	0	%	Seasonal Home:	\$
Stay with FR:	0	%	Stay with FR:	\$
Day Visitor:	100.	%	Day Visitor:	\$ 111.56
<input type="button" value="Estimate Impacts"/>				

Results are shown below :

- - Total spending by segment
- - Direct Effects
- Economic impact summary
-

Court of Call Feasibility Study
 Appendix II: IMPLAN Data
 Grande Mariner Econ. Impact:
 Page 9

Table 1: Total Tourist Spending by Lodging Segment

Spending Category	Motel	Camp	Seasonal Home	Stay with FR	Day Visitor	Total
Motel, hotel, cabin or B&B	0	0	0	0	0	0
Camping Fees	0	0	0	0	0	0

Restaurants & bars	0	0	0	0	2747	2747
Groceries, take-out food/drinks	0	0	0	0	776	776
Gas & Oil	0	0	0	0	1602	1602
Other vehicle expenses	0	0	0	0	61	61
Airfares, bus, rail, taxi, ferry	0	0	0	0	192	192
Admissions & fees	0	0	0	0	1326	1326
Clothing	0	0	0	0	877	877
Sporting goods	0	0	0	0	67	67
Gambling	0	0	0	0	113	113
Souvenirs and other expenses	0	0	0	0	2725	2725
Total	0	0	0	0	10487	10487

Table 2: Direct Effects

Spending Category	Sales	Jobs	Income	Value Added
Motel, hotel, cabin or B&B	0	0	0	0
Camping Fees	0	0	0	0
Restaurants & bars	2747	0	855	1192
Groceries, take-out food/drinks	24	0	3	7
Gas & Oil	0	0	0	0
Other vehicle expenses	61	0	17	27
Airfares, bus, rail, taxi, ferry	192	0	96	113
Admissions & fees	1326	0	433	708
Clothing	0	0	0	0
Sporting goods	0	0	0	0
Gambling	113	0	37	60
Souvenirs and other expenses	53	0	12	21
Retail Trade	2304	0	1175	1836
Wholesale Trade	346	0	139	237
Total	7166	0	2768	4200

Table 3: Economic Impacts On Regional Economy

Economic Measure	Direct Effects	Multiplier	Total Effects
Output/Sales	7166	1.308	9370
Personal Income	2768	1.267	3508
Total Value Added	4200	1.318	5535
Jobs	0	1.157	0
Total Visitor Spending	10487		
Capture Rate	68	%	
Effective spending multiplier	0.889		

Summary of Results

94 visitor party nights in the area resulted in \$10487 total spending. 68% of this spending was captured by the local economy yielding \$7166 in direct sales to tourism-related firms. These sales generated \$2768 in direct personal income, \$4200 direct value added and supported 0 direct jobs. Every dollar of direct sales yielded 1.308 in total sales effects including indirect and induced effects. With multiplier effects tourist spending resulted in \$9370 total sales, \$3508 in total personal income, \$5535 total value added and supported 0 jobs.

Michigan Economic Impact Calculator - Rural Regions

INSTRUCTIONS

Visits: Enter the number of visitors in party nights and the percentage of these visits for each of the five segments. Enter percentages as whole numbers, e.g. 50 for 50%. The percents must sum to 100.

Spending Averages: Enter spending average for each segment in dollars per party per night. Change the default values by selecting the cell and entering a new spending average.

Multipliers: This version uses multipliers for a generic rural region of Michigan. Choose the area or state versions for larger multipliers.

Press the Estimate Impacts button to compute spending and economic impacts. Results are shown below. To try another scenario change any of the inputs and press the Estimate Impacts button again.

Visits in Party nights: 402			Spending Averages (\$ per party night)		
Motel:	0	%	Motel:	\$	
Camper:	0	%	Camper:	\$	
Seasonal Home:	0	%	Seasonal Home:	\$	
Stay with FR:	0	%	Stay with FR:	\$	
Day Visitor:	100.	%	Day Visitor:	\$ 106.78	
<input type="button" value="Estimate Impacts"/>					

Results are shown below :

- - Total spending by segment
- - Direct Effects
- Economic impact summary
-

Court of Call Feasibility Study
 Appendix II: IMPLAN Data
 MV Columbus Econ. Impact:
 Page 12

Table 1: Total Tourist Spending by Lodging Segment

Spending Category	Motel	Camp	Seasonal Home	Stay with FR	Day Visitor	Total
Motel, hotel, cabin or B&B	0	0	0	0	0	0
Camping Fees	0	0	0	0	0	0

Restaurants & bars	0	0	0	0	11246	11246
Groceries, take-out food/drinks	0	0	0	0	3176	3176
Gas & Oil	0	0	0	0	6559	6559
Other vehicle expenses	0	0	0	0	249	249
Airfares, bus, rail, taxi, ferry	0	0	0	0	786	786
Admissions & fees	0	0	0	0	5426	5426
Clothing	0	0	0	0	3589	3589
Sporting goods	0	0	0	0	275	275
Gambling	0	0	0	0	464	464
Souvenirs and other expenses	0	0	0	0	11156	11156
Total	0	0	0	0	42926	42926

Table 2: Direct Effects

Spending Category	Sales	Jobs	Income	Value Added
Motel, hotel, cabin or B&B	0	0	0	0
Camping Fees	0	0	0	0
Restaurants & bars	11246	0	3502	4880
Groceries, take-out food/drinks	99	0	14	27
Gas & Oil	0	0	0	0
Other vehicle expenses	249	0	70	110
Airfares, bus, rail, taxi, ferry	786	0	394	463
Admissions & fees	5426	0	1772	2899
Clothing	0	0	0	0
Sporting goods	0	0	0	0
Gambling	464	0	151	248
Souvenirs and other expenses	215	0	49	85
Retail Trade	9432	0	4811	7515
Wholesale Trade	1417	0	568	968
Total	29334	1	11330	17195

Table 3: Economic Impacts On Regional Economy

Economic Measure	Direct Effects	Multiplier	Total Effects
Output/Sales	29334	1.308	38359
Personal Income	11330	1.267	14360
Total Value Added	17195	1.318	22658
Jobs	1	1.157	1
Total Visitor Spending	42926		
Capture Rate	68	%	
Effective spending multiplier	0.889		

Summary of Results

402 visitor party nights in the area resulted in \$42926 total spending. 68% of this spending was captured by the local economy yielding \$29334 in direct sales to tourism-related firms. These sales generated \$11330 in direct personal income, \$17195 direct value added and supported 1 direct jobs. Every dollar of direct sales yielded 1.308 in total sales effects including indirect and induced effects. With multiplier effects tourist spending resulted in \$38359 total sales, \$14360 in total personal income, \$22658 total value added and supported 1 jobs.

Michigan Economic Impact Calculator - Rural Regions

INSTRUCTIONS

Visits: Enter the number of visitors in party nights and the percentage of these visits for each of the five segments. Enter percentages as whole numbers, e.g. 50 for 50%. The percents must sum to 100.

Spending Averages: Enter spending average for each segment in dollars per party per night. Change the default values by selecting the cell and entering a new spending average.

Multipliers: This version uses multipliers for a generic rural region of Michigan. Choose the area or state versions for larger multipliers.

Press the Estimate Impacts button to compute spending and economic impacts. Results are shown below. To try another scenario change any of the inputs and press the Estimate Impacts button again.

Visits in Party nights: 196			Spending Averages (\$ per party night)	
Motel:	0	%	Motel:	\$
Camper:	0	%	Camper:	\$
Seasonal Home:	0	%	Seasonal Home:	\$
Stay with FR:	0	%	Stay with FR:	\$
Day Visitor:	100.	%	Day Visitor:	\$ 107.89
<input type="button" value="Estimate Impacts"/>				

Results are shown below :

- [View Results](#) - Total spending by segment
- [View Results](#) - Direct Effects
- [View Results](#) Economic impact summary
- [View Results](#) Multiplier Effects

Court of Call Feasibility Study
 Appendix II: IMPLAN Data
 Pearl Mist Econ. Impact:
 Page 15

Table 1: Total Tourist Spending by Lodging Segment

Spending Category	Motel	Camp	Seasonal Home	Stay with FR	Day Visitor	Total
Motel, hotel, cabin or B&B	0	0	0	0	0	0
Camping Fees	0	0	0	0	0	0

Restaurants & bars	0	0	0	0	5540	5540
Groceries, take-out food/drinks	0	0	0	0	1565	1565
Gas & Oil	0	0	0	0	3231	3231
Other vehicle expenses	0	0	0	0	123	123
Airfares, bus, rail, taxi, ferry	0	0	0	0	387	387
Admissions & fees	0	0	0	0	2673	2673
Clothing	0	0	0	0	1768	1768
Sporting goods	0	0	0	0	135	135
Gambling	0	0	0	0	228	228
Souvenirs and other expenses	0	0	0	0	5496	5496
Total	0	0	0	0	21146	21146

Table 2: Direct Effects

Spending Category	Sales	Jobs	Income	Value Added
Motel, hotel, cabin or B&B	0	0	0	0
Camping Fees	0	0	0	0
Restaurants & bars	5540	0	1725	2404
Groceries, take-out food/drinks	49	0	7	13
Gas & Oil	0	0	0	0
Other vehicle expenses	123	0	34	54
Airfares, bus, rail, taxi, ferry	387	0	194	228
Admissions & fees	2673	0	873	1428
Clothing	0	0	0	0
Sporting goods	0	0	0	0
Gambling	228	0	74	122
Souvenirs and other expenses	106	0	24	42
Retail Trade	4646	0	2370	3702
Wholesale Trade	698	0	280	477
Total	14450	1	5581	8470

Table 3: Economic Impacts On Regional Economy

Economic Measure	Direct Effects	Multiplier	Total Effects
Output/Sales	14450	1.308	18896
Personal Income	5581	1.267	7074
Total Value Added	8470	1.318	11162
Jobs	1	1.157	1
Total Visitor Spending	21146		
Capture Rate	68	%	
Effective spending multiplier	0.889		

Summary of Results

196 visitor party nights in the area resulted in \$21146 total spending. 68% of this spending was captured by the local economy yielding \$14450 in direct sales to tourism-related firms. These sales generated \$5581 in direct personal income, \$8470 direct value added and supported 1 direct jobs. Every dollar of direct sales yielded 1.308 in total sales effects including indirect and induced effects. With multiplier effects tourist spending resulted in \$18896 total sales, \$7074 in total personal income, \$11162 total value added and supported 1 jobs.

Minnesota IMPLAN Group Iosco County Data Results: Information was developed based on what passengers spent money for on shore. The tables below develop passenger and crew on-shore spending per visit and use that data for the Minnesota IMPLAN Group model for Iosco County.



Port of Call Project: Feasibility Study: Appendix II: IMPLAN Data

**Develop Iosco, Inc./City of East Tawas
Port of Call Project
TABLE Appendix II - On-Shore Spending**

NAICS Category	NAICSIMPLAN		Mix %	Niagara Prince	Grande Mariner	MV Columbus	Pearl Mist
	Number	Number					
Food and Beverages	722	413	27.1%	\$ 2,134.87	\$ 2,343.15	\$ 9,346.55	\$ 4,686.29
Drug & Beauty	446	325	1.9%	\$ 149.68	\$ 164.28	\$ 655.29	\$ 328.56
Apparel Items	448	327	26.8%	\$ 2,111.23	\$ 2,317.21	\$ 9,243.09	\$ 4,634.42
Household Goods	443	332	8.0%	\$ 630.22	\$ 691.70	\$ 2,759.13	\$ 1,383.41
Fine Art & Jewelry	453	330	16.1%	\$ 1,268.32	\$ 1,392.05	\$ 5,552.75	\$ 2,784.11
Transportation	485	336	3.0%	\$ 236.33	\$ 259.39	\$ 1,034.67	\$ 518.78
Tours (not sponsored by line)	487	338	6.4%	\$ 504.18	\$ 553.36	\$ 2,207.30	\$ 1,106.73
Rental Equipment	532	363	0.6%	\$ 47.27	\$ 51.88	\$ 206.93	\$ 103.76
Other Expenditures	452	329	10.1%	\$ 795.65	\$ 873.28	\$ 3,483.40	\$ 1,746.55
TOTAL PASSENGER SPENDING			100.0%	\$ 7,877.74	\$ 8,646.30	\$ 34,489.13	\$ 17,292.60

Crew Spending

	Implan sector # used	Mix Percent	Niagara Prince	Grande Mariner	MV Columbus	Pearl Mist
Clothing	327	9.5%	\$ 24.76	\$ 24.76	\$ 266.12	\$ 99.02
Other Purchases	329	7.4%	\$ 19.28	\$ 19.28	\$ 207.26	\$ 77.12
Watches & Jewelry	330	17.8%	\$ 46.71	\$ 46.71	\$ 502.11	\$ 186.83
Taxis/Ground Transportation	336	5.7%	\$ 14.93	\$ 14.93	\$ 160.52	\$ 59.73
Shore Excursions	338	5.0%	\$ 13.20	\$ 13.20	\$ 141.93	\$ 52.81
Food @ Restaurants & Bars	413	23.6%	\$ 61.85	\$ 61.85	\$ 664.87	\$ 247.40
Local Crafts & Souvenirs	330	3.6%	\$ 9.54	\$ 9.54	\$ 102.51	\$ 38.14
Entertainment/Night Clubs	413	9.5%	\$ 24.91	\$ 24.91	\$ 267.81	\$ 99.65
Telephone & Internet	351	2.8%	\$ 7.36	\$ 7.36	\$ 79.13	\$ 29.44
Retail Purchases of Liquor	324	1.9%	\$ 4.85	\$ 4.85	\$ 52.10	\$ 19.39
Electronics	322	10.8%	\$ 28.27	\$ 28.27	\$ 303.85	\$ 113.06
TOTAL CREW SPENDING		100.0%	\$ 261.96	\$ 261.96	\$ 2,816.07	\$ 1,047.84
			\$ 261.93	\$ 261.93	\$ 2,815.79	\$ 1,047.73

Line Spending

Marinas	713	409	\$ 200.00	\$ 200.00	\$ 110.00	\$ 50.00
Line Tours	487	338	\$ 1,248.00	\$ 1,378.00	\$ 5,512.00	\$ 2,756.00
TOTAL LINE SPENDING			\$1,448.00	\$15,578.00	\$5,622.00	\$2,806.00

Port of Call Project: Feasibility Study: Appendix II: IMPLAN Data

**Port of Call Project
Economic Impact Based on MIG Model
Minnesota IMPLAN Group Model
Grande Mariner Port-of-Call Visits**

<i>Impact Summary (MIG)</i>	<i>Grande Mariner</i>		<i>One Stop</i>	
Impact Type	Employment (jobs)	Labor Income	Total Value Added	Sales / Output
Direct Effect	0.138	\$ 3,114.23	\$ 4,543.17	\$ 7,152.61
Indirect Effect	0.007	\$ 252.06	\$ 457.76	\$ 789.88
<u>Induced Effect</u>	<u>0.014</u>	<u>\$ 386.33</u>	<u>\$ 787.62</u>	<u>\$ 1,320.38</u>
Total Effect	0.159	\$ 3,752.62	\$ 5,788.55	\$ 9,262.87
<i>MSU IMPLAN (MSU)</i>	<i>Grande Mariner</i>		<i>One Stop</i>	
Impact Type	Employment	Labor Income	Total Value Added	Sales / Output
Direct Effect	0.000	\$ 2,768.00	\$ 4,200.00	\$ 7,166.00
Indirect Effect				
<u>Induced Effect</u>				
Total Effect	0.000	\$ 3,508.00	\$ 5,536.00	\$ 9,372.00
difference	-0.159	\$ -244.62	\$ -252.55	\$ 109.13
<i>Impact Summary (MIG)</i>	<i>Grande Mariner</i>		<i>Two Stops</i>	
Impact Type	Employment	Labor Income	Total Value Added	Sales / Output
Direct Effect	0.288	\$ 6,839.53	\$ 9,845.24	\$ 16,019.81
Indirect Effect	0.015	\$ 547.53	\$ 984.73	\$ 1,712.09
<u>Induced Effect</u>	<u>0.031</u>	<u>\$ 849.32</u>	<u>\$ 1,731.78</u>	<u>\$ 2,903.10</u>
Total Effect	0.334	\$ 8,236.38	\$ 12,561.74	\$ 20,635.00
<i>Impact Summary (MIG)</i>	<i>Grande Mariner</i>		<i>Three Stops</i>	
Impact Type	Employment	Labor Income	Total Value Added	Sales / Output
Direct Effect	0.432	\$ 10,259.29	\$ 14,767.86	\$ 24,029.71
Indirect Effect	0.022	\$ 821.30	\$ 1,477.09	\$ 2,568.14
<u>Induced Effect</u>	<u>0.047</u>	<u>\$ 1,274.02</u>	<u>\$ 2,597.74</u>	<u>\$ 4,354.77</u>
Total Effect	0.501	\$ 12,354.61	\$ 18,842.68	\$ 30,952.62
<i>Impact Summary (MIG)</i>	<i>Grande Mariner</i>		<i>Four Stops</i>	
Impact Type	Employment	Labor Income	Total Value Added	Sales / Output
Direct Effect	0.576	\$ 13,679.06	\$ 19,690.47	\$ 32,039.62
Indirect Effect	0.030	\$ 1,095.06	\$ 1,969.45	\$ 3,424.18
<u>Induced Effect</u>	<u>0.062</u>	<u>\$ 1,698.73</u>	<u>\$ 3,463.72</u>	<u>\$ 5,806.48</u>
Total Effect	0.668	\$ 16,472.85	\$ 25,123.64	\$ 41,270.28
<i>Impact Summary (MIG)</i>	<i>Grande Mariner</i>		<i>Five Stops</i>	
Impact Type	Employment	Labor Income	Total Value Added	Sales / Output
Direct Effect	0.720	\$ 17,098.82	\$ 24,613.09	\$ 40,049.52
Indirect Effect	0.037	\$ 1,368.83	\$ 2,461.81	\$ 4,280.22
<u>Induced Effect</u>	<u>0.078</u>	<u>\$ 2,123.41</u>	<u>\$ 4,329.64</u>	<u>\$ 7,258.10</u>
Total Effect	0.835	\$ 20,591.06	\$ 31,404.55	\$ 51,587.85
<i>Impact Summary (MIG)</i>	<i>Grande Mariner</i>		<i>Ten Stops</i>	
Impact Type	Employment	Labor Income	Total Value Added	Sales / Output
Direct Effect	1.440	\$ 34,197.64	\$ 49,226.19	\$ 80,099.05
Indirect Effect	0.074	\$ 2,737.66	\$ 4,923.63	\$ 8,560.45
<u>Induced Effect</u>	<u>0.156</u>	<u>\$ 4,246.85</u>	<u>\$ 8,659.35</u>	<u>\$ 14,516.31</u>
Total Effect	1.670	\$ 41,182.15	\$ 62,809.17	\$ 103,175.80

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Port of Call Project: Feasibility Study: Appendix III: Area Tours

East Tawas-area cruise passengers have a wide array of potential activities from which to choose. Appendix III includes brief descriptions of potential passenger destinations. Any of the attractions listed in Section III of this report are available. The resources and tours described are provided as examples.

- I. **Support resources:** Our area is endowed with many existing resources that could support organized cruise line sponsored tours.
 - A. **Human resources:**
 1. **Translators:** Individuals fluent in English and many other languages reside in the county. Languages available include
 - a. Chinese
 - b. Japanese
 - c. German
 - d. Spanish
 - f. French
 - g. As the marketing plans are developed, other language speakers will be sought to be placed on the stand-by list.
 2. **Guides:** We are fortunate to have an abundant supply of qualified guides who are very knowledgeable in their areas of interest. A partial list of available interest areas follows:
 - a. Au Sable River Guides
 - b. Great Lakes charter fishing guides
 - c. Natural resource guides
 1. Birding
 2. Forest and forestry
 3. Geology
 4. Flora and fauna
 - d. Historical
 1. Historical sites
 2. Native American crafts and life
 - e. Sports
 1. Kiteboarding
 2. Canoe racing
 3. Canoeing and kayaking
 - f. Other

B. Tour operators and equipment:

1. Michigan Sunrise Tours is a locally owned tour operator of high reputation. They currently bring tours to our area on a regular basis.
 2. Tour busses are available from
 - a. Iosco Transit
 - b. Local specialty tour operators such as canoe liveries
 - c. Area commercial bus operators such as Indian Trails
2. **Sample Tours:** Section III lists our many points of interest. The tours described below are described in a general way because time-of-year and season have an impact of the best destinations. Each tour would be structured to take advantage of the attractions available at that time. For example, a May tour would focus on the Great Bird Migration with stops chosen for the maximum viewing while being consistent with not having an adverse impact on the birds.
- a. **Anytime Summer Tour: Iosco Highlights Tour:** This guided tour starts at **Tawas Point Lighthouse** with a docent describing the light's history, importance and reason for placement. Leaving the lighthouse, the tour would move along the River Road National Scenic Byway as described in Section III.
 - 1.) Qualified guides would describe the area's logging history and its impact on the Au Sable River.
 - 2.) Other stops would be based on the time of year and available wildlife, leaf colors, flora and fauna. The routes might include stops at
 - Eagle Run Trail
 - Foote Hydroelectric Dam
 - Foote Pond Overlook
 - Cooke Hydroelectric Dam
 - Lumberman's Monument
 - Kiwanis Monument
 - Canoeer's Memorial
 - Iargo Springs Interpretive Site
 - Loud Hydroelectric Dam
 - Five Channels Hydroelectric Dam
 - Westgate Overlook
 - Rollways Area

3. Refreshments and a picnic meal would be provided
- b. **Spring Birding Tour:** A spring cruise focused on birding would be a popular cruise. Linking such a cruise to the Au Sable Valley Audubon's Spring Conference would be a great draw to this area perhaps resulting in a two-day stay. Two types of tours would be available.
1. **Conference Tours:** The Spring Conference includes focused tours of its own. These have been very popular in the past.
 2. Special tours for cruise passenger:

Tawas Point Walking Tour: During the migration, start early and bus to the Point where an expert-guided walking tour will be conducted. Nearly 300 different species have been seen at the Point. Refreshments provided.

Kirtland's Warbler Habitat Tour: Expert-guided tour to warbler habitat areas: Opportunity to see Kirtland's Warbler, clay-colored sparrows, red-headed woodpeckers, eagles and hawks to mention a few. Perhaps this is the afternoon segment of the Tawas Point tour described above.

Custom Tours: Cruise-passenger shore tours can be customized to fit the season.
- c. **Recreation Tours:** A canoe livery will be selected to pick-up passengers at the State Dock and take them to a launching point on the Au Sable River where canoes or kayaks will be provided for a one-half day trip down the legendary Au Sable. Picnic lunch and refreshments will be provided. The livery will bring the participants back to the Dock. Shorter two hour trips are available for canoers and kayakers. This shorter trip can be done by tube in four hours. Eagles, blue heron, geese, ducks, beaver, deer, and bobcat may be seen

Port of Call Project: Feasibility Study: Appendix III: Area Tours

- d. **Photographic Tours:** A tour led by a qualified nature photographer. Depending on the season the focus could be wildflowers, birds, landscapes, overlooks, and animals. Three sample alternatives are described below:

Spring and early Summer: A three-hour trip to Tuttle Marsh for shore birds, osprey and wildflowers.

Spring Wildflowers: A four hour-trip to Eagle Run on the Au Sable River. This is a spring-only walk on the East Loop Trail looking for wildflowers such as yellow lady slipper orchid, pink lady slipper orchard, jack in the pulpit, trillium, nodding trillium and others. Birds and the River are also available as subjects.

Westgate Welcome Center Overlook: Overlook platforms provide spectacular views of Loud Pond. The spectacular colors of fall are enhanced by the ducks and geese on the pond. Deer may be seen coming to the river for a drink.

- e. **Fishing and Boating Opportunities:** Small groups and individuals can access charter fishing boats or hire river fishing guides. Jet skis are available near the Dock.
- f. **Charity Island Lighthouse Cruise:** A high-speed catamaran trip to historic Charity Island provides access to a historic lighthouse. The keepers house has been restored and provides wonderful meals to visitors. A knowledgeable guide presents history and nature information. Visit a prehistoric source of arrowheads. Weather permitting, cruise by the active Gravelly Shoals Lighthouse.
- g. **Individual Walking and Biking Tours:** Several walking tours and bicycle tours exist or are under development. These walks or bike excursions start at the dock and include:

Tawas Point Lighthouse

Port of Call Project: Feasibility Study: Appendix III: Area Tours

Alabaster Native Tree Trail
Architectural tour
Gallery Tour
Antique Tour
SHOPPING
DINING