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THE FUTURE OF AMERICAN AVIATION INDUSTRY IN INTERNATIONAL MARKETS (CASE STUDIES OF THE NEW BEDFORD AIRPORT AND CHINESE AVIATION MARKET)

Yiyun Hao, Bridgewater State University
Chien Wen Yu, Bridgewater State University

ABSTRACT

This project discovers the opportunities and challenges for the American aviation industry in international markets, through on-site case-study methods. The research hypothesis is this: "If there is better alignment with innovative international cooperation, then the American aviation industry's success rates will be improved." The project provides practical application, and it builds an optimal development model for addressing current problems facing the aviation industry in the United States.

In order to make the research more focused and feasible, the researchers chose the New Bedford Airport and aviation markets in China as sites for the case studies. Our research emphasizes methods of market innovation and expansion of the aviation industry in the United States based on marketing prospect theory.

Research results are mainly from on-site original research with the latest industry data (2012-2013). The research methods include: on-site case study (including 4 main Chinese cities-Beijing, Shanghai, Tianjin, Guangzhou, and 15 main Chinese flight departments, airline companies and aviation universities); an observation research method (for observing the operations at comparable airports in both America and China); an ASEB-SWOT (strengths, weaknesses, opportunities, threats) marketing matrix analysis; qualitative and quantitative research; and both statistical modeling and optimal model development.

The research indicates that innovative international cooperation can create a win-win scenario, which will certainly improve the American aviation industry's success rates. Based on the on-site observation method research in China, as well as interviews with Chinese aviation scholars and experts, we found out that international cooperation may benefit from the huge potential markets in China but also that we should be aware of the "airline dilemma of China."

Nowadays, regional airports in United States are faced with more challenges and pressure. Jonathan Bailey, external affairs director at Manchester Airports Group, said recently that he saw "no future" for the smallest airports, blaming high tax, regulatory and security costs. New Bedford Airport, as a regional airport in Massachusetts, is also facing this very same problem. This paper explores the special niche of the New Bedford Airport, by analyzing its macro environment, industry circumstances and the competitive environment. Because of beneficial geographical conditions and sound economic fundamentals, New Bedford Regional Airport has an advantageous position for making innovative service plans – pertaining to cargo shipment, general aviation, corporate jet services, and flight instruction – in order to form a more diversified development model. This case study also builds up a marketing model that will be beneficial for other small regional airports, since it will help them open up their markets and overcome pressures from major airports.

In addition, the New Bedford Airport and Bridgewater State University (BSU) aviation-training program are cooperative partners, and the BSU aviation program is planning to build a future international training program with China. Thus, the findings here will be useful to the BSU international pilot training program. Also, the project provides a cooperation model that will contribute to research on the American and Chinese airline industries and to cooperative pilot-training programs between China and the United States.

In this ever-changing world, not moving means moving backward. Innovative international cooperation can create a win-win scenario and will certainly improve American aviation industry's success rates.

INTRODUCTION

Suppose you and your families, as residents in one of America's smaller cities, are planning to travel. Which of the following will you choose: pay increasingly high fares to board a plane close to home or drive farther and spend more time to reach a bigger airport with lower ticket prices?

Nowadays, regional airports are faced with more challenges and pressures. Local residents now are more willing to drive to bigger airports with lower fares, and so small airports feel the pinch even more. Jonathan Bailey, external affairs director at Manchester Airports Group, said recently that he saw "no future" for the smallest airports, blaming high tax, regulatory and security costs, which he said had a greater impact on the regions.[i] So, are regional airports going to die? Will we be unable to take small airplanes anymore in the future?

Of course, No! Then what is the special niche for those regional airports, and what should they do to seek new market opportunities? Also, given the development of the global economy, will better alignment with innovative international cooperation improve American aviation industry's success rates?

The goal of this research program is to find out answers for these questions and to develop an optimal international marketing model that can create a win-win scenario.

MATERIALS AND METHODS

Research results are mainly from on-site original research with latest industry data (2012-2013). The research methods include: on-site case study (including 4 main Chinese cities-Beijing, Shanghai, Tianjin, Guangzhou, and 15 main Chinese flight departments, airline companies and aviation universities); an observation research method (to observe the operations at comparable airports in both America and China); an ASEB-SWOT (strengths, weaknesses, opportunities, threats) marketing matrix analysis; qualitative and quantitative research; and both statistical modeling and optimal model development.

This research is composed of two main sections. The first section is focused mainly on the aviation market in America. The research focus begins there. We conducted several interviews with the New Bedford Regional Airport's manager. The interview objective is to know more background information including the SWOT (strength, weakness, opportunity, and threat) analysis of the New Bedford Regional Airport in order to make a comprehensive marketing plan. The interview questions include three main aspects: the background information (including the mission, vision, SWOT analysis and core competency), the Bridgewater aviation China initiative (including both commercial and educational cooperation) and the future of the American aviation industry in the international market.

Interviews with students who are in the Bridgewater State University aviation program are also conducted. These interviews are designed to realize two main objectives. Firstly, the goal is to find out the opinions of students concerning Bridgewater State University's aviation program. Secondly, the goal is to find out what they think of the possibility of an aviation cooperation program between America and China.

The second section is mainly focused on the aviation market in China. The BSU aviation program's future cooperative partner, TrainingBeam Education, Ltd, is located in Guangzhou, China. In Guangzhou, We also collected the first hand industry information by on-site interviews with the CEO of TrainingBeam Education, Ltd.

In addition, an observation research method (to observe the operations at comparable airports in both America and China) and a review of the literature on international aviation markets and international relations are also included in the research.

RESULTS

Research from a Macroscopic Angle

Aviation Industry in the United States—Trends

The aviation industry continued to show resilience last year, despite tough economic times. The activity of U.S. carriers at home and abroad increased by 3.5 percent in 2011.[ii] Despite a slight pause in growth projected for 2012, we expect that over the long run, aviation will continue to experience steady, moderate growth.

While downturn is rife in the airline industry, the US industry will do relatively well, with IATA expecting the US industry to post USD2 billion in earnings in 2011 and USD2.9 billion in 2012, as US carriers limit capacity growth, keeping load factors high.[iii] Airfares will be on the rise in 2013, and those niggling airline fees will metamorphose into optional bundles of services. Meanwhile, onboard amenities, such as Internet access, entertainment options and refreshed interiors, will abound among U.S. carriers, but tight seating in coach probably won't improve.[iv]

Aviation Industry in the United States—Challenges and Opportunities

The latest news, reported on January 8, 2013, regarding projected trends for 2013 in the U.S. airline industry, points to declines in flights, seat capacity and passengers.[v] The nation's air transportation system will likely see a 1.5 to 2.0 percent drop in traffic in 2013, said Boyd Group International, an aviation consulting and research firm whose clients include airlines, airports and financial institutions.

The past decade or so has largely been a rough one for the aviation industry. There was 9/11, new security regulations, and lots of red ink that only recently has stopped spilling. Over the last decade, U.S. air carriers experienced more than $50 billion in losses, according to Airlines for America (A4A), the largest airline trade association in the country. The industry has started to see some profit over the last two years, though very little. In 2011, the 11 U.S. passenger airlines' aggregate net income was a meager $390 million, a 0.3% profit margin. This is for a U.S. industry that supports 10 million jobs and drives

more than $1 trillion in U.S. economic activity, according to A4A.[vi]

The future of aviation, however, looks brighter. It promises new ultra-efficient aircraft, a modernized air traffic control system, and the potential for greater revenue and jobs. That is, if the ever-present hand of government does not stifle an industry it seeks to regulate.

Aviation Markets in China—Trends and Opportunities

According to predictions of Aviation Industry Corporation of China, in the next 20 years, China will have an increase of 4583 civilian airliners, including 3682 jumbo jets and 901 regional aircrafts. Chinese commercial aviation aircraft market will undoubtedly grow rapidly. To the year 2030, China's share of the global aircraft fleet will increase from 9% to 15%.[vii]

The development of the international aviation market will have a significant effect on the future expansion of the American aviation industry. As the world's fastest growing aviation market and the third largest aircraft market, China was rarely out of the news in 2012.

According to Current Market Outlook 2013-2031 by Boeing, the GDP is forecasted to rise 6.5 percent annually over the next 20 years.[viii] China will continue to serve as a growth engine for the global economy. China's share of world GDP will continue to increase over the next several decades. As Chinese incomes converge toward those in the historical industrialized nations, an expanding middle class will expect to enjoy a comparable standard of living and consumption patterns.

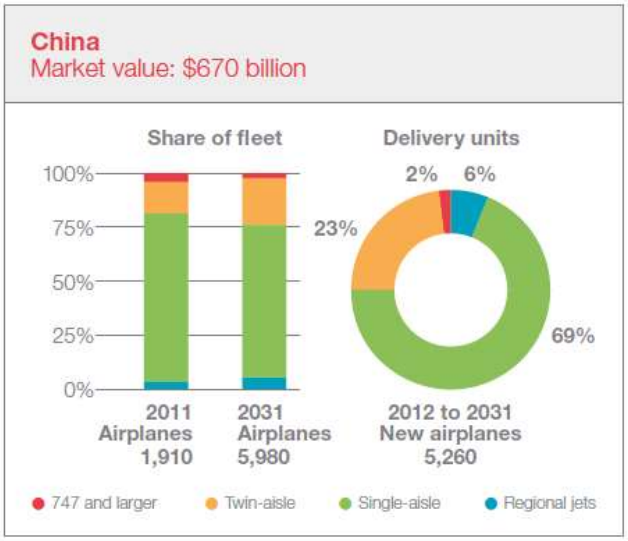
China
Key indicators and new airplane markets

Growth measures	
Economy (GDP)	6.5%
Traffic (RPK)	7.0%
Cargo (RTK)	6.2%
Airplane fleet	5.9%

Market size	
Deliveries	5,260
Market value	$670B
Average value	$130M

	New airplanes	Share by size
Large	110	2%
Twin aisle	1,190	23%
Single aisle	3,650	69%
Regional jets	310	6%
Total	**5,260**	

	2011 Fleet	2031 Fleet
Large	80	140
Twin aisle	280	1,310
Single aisle	1,490	4,220
Regional jets	60	310
Total	**1,910**	**5,980**



(Source: Current Market Outlook 2013-2031 by Boeing)

Traffic continues to be robust, rising 12.1 percent in 2011 compared to 2010. Growth will moderate toward 7.0 percent, which will nonetheless drive a need for 5,260 new airplanes valued at $670 billion.[ix]

A projected 230 airports will be available for commercial use by 2015 as domestic travel continues to grow. Airlines will also look for opportunities to expand, particularly in regional and long-haul markets. The number of new international markets has doubled over the past 10 years. Over the next 20 years, intra-Asia and long-haul traffic are both expected to grow 7.2 percent,[x] driving the future fleet mix. Single-aisle airplanes will be preferred for newly opening markets within China. Within Asia, a mix of single-aisle and twin-aisle airplanes will be needed, while long-haul flying will rely on airplanes like the 787, 777, and 747-8 Intercontinental.[xi]

Aviation Markets in China—Challenges (Airline dilemma of China)

According to Boeing and Airbus forecast, China would triple its existing fleet of 1,800 aircraft in the next 20 years. But this kind of breakneck growth does bring problems.

According to our interviews with scholars in Qinghua University, Beijing University of Applied Technology, Beijing University of Aeronautics and Astronautics, and Civil Aviation University in City of Tianjin, the airspace in China is tightly controlled by the Chinese military. This unfortunately contributes to difficulty in gaining airspace, leading to a cumbersome flight application process in China. For example, pilots in the U.S. can simply reserve airspace on their way to the airport from their mobile phone, but pilots in China need to apply ahead of time.

Restrictive Regulatory Environment:	• Lack of effective regulatory framework to ensure safety and security • Lack of coordinated regulations and policies across stakeholders
Restrictive Airspace Access:	• China has not captured all full usage of airspace as a resource • Limited air traffic managements
Infrastructure and Resources Constraints:	• Few airports and low utilization of existing airports • Dearth of pilots and pilot development training system
Underdeveloped Supply Ecosystem:	• Management, technology, and engineering constraints limit advances in aviation manufacturing

(Source: U.S-China Aviation Cooperation Program)

Through our surveys with aviation students at Beijing University of Aeronautics and Astronautics, we were surprised to find out that pilot training costs in China are actually much higher than in the United States.

The availability of critically needed infrastructure and human-resources, including pilots, mechanics, and inspectors, are mandatory to secure the sustainable development of a healthy aviation market. Due to these constraints, in the future, there will be a shortage of pilots in China, which will constrain the further development of the aviation industry in China and cause the "Airline Dilemma of China".

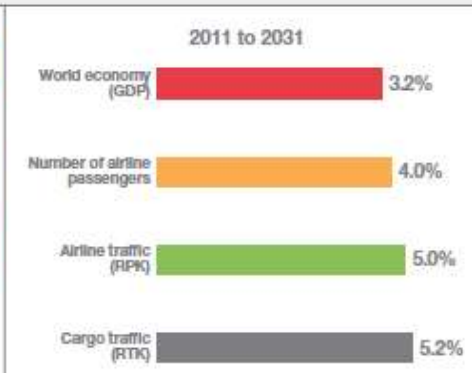
The aviation market in China will need more than 18,000 new pilots in the next 10 years. Wasinc International, the largest pilot leasing firm in China, has held more than 10 pilot job fairs in the USA, Mexico and Panama, for Chinese airline companies, and it has seen great success.[xii] Chinese aviation companies are willing to pay an annual salary ranging from $168,000 to $192,000, while the average annual salary for a pilot in America is around $116,000.[xiii]

The huge marketing potential from China shows the opportunity and necessity for future cooperation between the New Bedford Regional Airport and China, in both commercial and educational aspects.

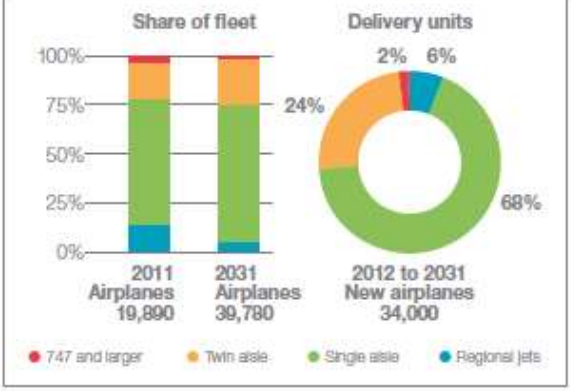
Future of the Aviation Industry in International Markets

According to the Boeing forecast, at the broadest level, global economic growth is expected to average 3.2 percent over the next 20 years, fostering 5.0 percent annual growth in passenger traffic and 5.2 percent annual growth in cargo traffic.[xiv] Airlines in Asia are forecast to be the most profitable, driven by growing demand within the region. North American airlines will follow closely, boosted by capacity discipline in the US domestic market.

World regions
Market growth rates



World regions
Market value: $4,470 billion



(Source: Current Market Outlook 2013-2031 by Boeing)

World regions
Key indicators and new airplane markets

Growth measures Regions			Asia Pacific	North America	Europe	Middle East	Latin America	CIS	Africa	World
World economy	(GDP)	%	4.6	2.6	1.9	3.9	4.1	3.4	4.4	3.2
Airline traffic	(RPK)	%	6.4	2.8	4.1	6.4	6.6	4.7	5.6	5.0
Cargo traffic	(RTK)	%	5.9	4.5	4.6	5.7	5.9	5.0	5.8	5.2
Airplane fleet		%	5.5	1.4	3.2	4.8	5.1	1.7	3.4	3.5
Market size										
Deliveries			12,030	7,290	7,760	2,370	2,510	1,140	900	34,000
Market value	($B)		1,700	820	970	470	260	130	120	4,470
Average value	($M)		140	110	130	200	100	110	130	130
Unit share		%	35	22	23	7	7	3	3	100
Value share		%	38	18	22	10	6	3	2	100
New airplane deliveries										
Large			320	40	200	190	0	30	10	790
Twin aisle			3,230	1,320	1,440	1,100	340	250	270	7,950
Single aisle			7,990	5,040	5,800	1,060	2,080	700	570	23,240
Regional jets			490	890	320	20	90	160	50	2,020
Total			**12,030**	**7,290**	**7,760**	**2,370**	**2,510**	**1,140**	**900**	**34,000**
Market value (2010 $B, catalog prices)										
Large			110	10	70	70	0	20	2	280
Twin aisle			860	340	370	310	80	50	70	2,080
Single aisle			720	440	520	80	170	50	50	2,030
Regional jets			10	30	10	10	10	10	2	80
Total			**1,700**	**820**	**970**	**470**	**260**	**130**	**120**	**4,470**
2011 fleet										
Large			340	120	190	70	0	60	10	790
Twin aisle			1,080	1,030	680	470	140	170	140	3,710
Single aisle			3,170	3,730	3,160	470	1,020	650	410	12,610
Regional jets			120	1,770	410	60	110	200	110	2,780
Total			**4,710**	**6,650**	**4,440**	**1,070**	**1,270**	**1,080**	**670**	**19,890**
2031 fleet										
Large			460	110	230	170	0	50	10	1,030
Twin aisle			3,490	1,740	1,630	1,170	440	310	330	9,110
Single aisle			9,230	6,090	6,120	1,320	2,850	970	850	27,430
Regional jets			490	890	340	50	160	170	110	2,210
Total			**13,670**	**8,830**	**8,320**	**2,710**	**3,450**	**1,500**	**1,300**	**39,780**

Market values above 5 have been rounded to the nearest 10.

(Source: Current Market Outlook 2013-2031 by Boeing)

In response to market pressures, airlines are deploying capacity more strategically to help boost yields and cover higher fuel expenses. Airlines are optimizing airplane utilization more closely to seasonal demand fluctuations, and passenger load factors remain near historic highs. The number of new-generation airplanes in the parked fleet remains low, indicating that airlines are shifting utilization to their most efficient assets. These activities are projected to help the global airline industry

achieve a profitable year, despite below-average economic growth and oil prices that are likely to average in the triple digits for the full year-a scenario that would have seemed unbelievable just a decade ago.[xv]

On-site Research from a Microscopic Angle

A Case Study of the New Bedford Airport---Strategic Position: Internal and External Opportunities

Through previous research, the internal opportunities for the New Bedford Regional Airport include the good location (located just in south of Boston Massachusetts and a four hour drive east of New York City), development of tourism (in the historic city of New Bedford) and the unique BSU aviation education program (high performance to price ratio; the only aviation education program in New England area).

The BSU aviation program is a special niche for the New Bedford Regional Airport. According to Jerry, a student from BSU aviation program, the BSU aviation program has high cost performance, and BSU is the only school that provides an aviation program in the New England area. When asked for his opinions about the exchange aviation program, he said he would be very willing to go to China if there is an opportunity. In addition, he gave two suggestions for the BSU aviation program. First, he suggests adding a school shuttle service between Bridgewater State University and New Bedford Regional Airport.[xvi] "Though almost every student has their own car here, the school should be aware that it is extremely hard for the first-year international students, who do not have cars yet, to go to the airport from school." He said, "I still remember I had to ask my friends to drive me to the airport every time, and it is so inconvenient". The second suggestion is to add multi-engine flight training to the program.[xvii]

According to the interview with Greg Bongiorno, who is a manager of the BSU aviation program, the prime challenge for regional airport is the financial challenge. However, the comparatively timesaving advantage of BSU aviation program is its competitiveness in international markets. "It takes a student almost 10 years to finish the aviation training in China whereas BSU aviation program only takes 4 to 5 five years. If a student only take 'pure flight training' (without college curriculums), students can get their driving license within only one year".[xviii]

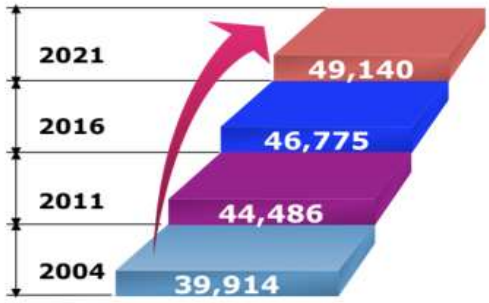
A Case Study of the New Bedford Airport---Strategic Position: Internal and External Opportunities ---Passenger Volume Trend

In the past 20 years, population within the Study Area has grown 21 percent; income has grown more than 60 percent; and employment has grown more than 25 percent. Forecasts of future population growth indicate higher growth in southeastern Massachusetts when compared to the "inner core" Boston metropolitan area. Corporate jet activity at the New Bedford Regional Airport has doubled in the past few years and is expected to see continued growth through 2021.[xix] The graph is shown below.

Forecast of Passenger Activity

Year	Passengers
Base Year (Actual)	
2004	39,914
Forecast	
2011	44,486
2016	46,755
2021	49,140

Source: New Bedford Regional Airport Records; Washington Group International, Inc.



A Case Study of the New Bedford Airport---Strategic Position: Internal and External Opportunities ---Risk Analysis

Through our previous research, we have learned that for the New Bedford Regional Airport, there are two main threats from the domestic market. First of all, the threat comes from the 45 airports available to the public in Massachusetts. The Gen Edward Lawrence Logan International Airport is the only international airport. The others are regional airports including the New Bedford Regional Airport.

Second of all, the threat stems from the New England Fast Ferry. There are two destinations from the New Bedford Regional Airport, Martha's Vineyard and Nantucket, which are operated by Cape Air. Meanwhile, New England Fast Ferry has ferries from New Bedford to Martha's Vineyard. According to the ticket price, we can see that choosing the New Bedford Regional Airport will cost more money (about $10) than choosing the New England Fast Ferry Company. However, the flight (17 minutes) is much shorter than the ferry (60 minutes). The comparison graphs are shown below.

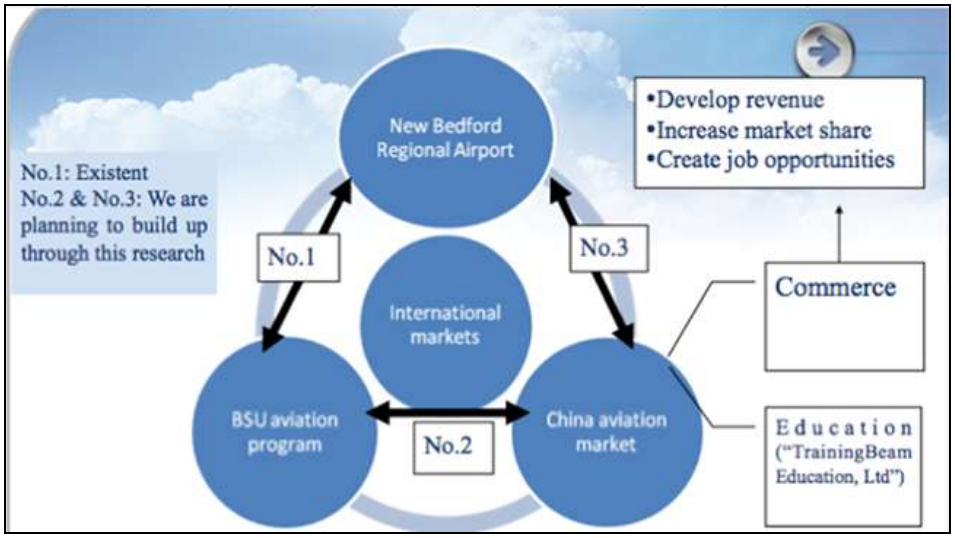
Fare Type	One Way Price	Time
New Bedford Regional Airport	$44.50	17 minutes
Express Ferry Service Fares	$34	60 minutes

In addition, future pressures from international aviation markets, environmental problems (the airport is built near wet land), limited airline capacity (only two air lines), and limited customer awareness are also risks that restrict the airport's development.

A Case Study of the New Bedford Airport---Strategic Position: Internal and External Opportunities ---Internal Marketing Innovation Strategies

Based on the previous SWOT analysis, internal marketing innovation strategies should focus on the special "niche" of the New Bedford Regional Airport. This means to find out what a regional airport can provide but a commercial airport cannot. Through on-site research, we have found out the New Bedford Regional Airport has a unique marketing opportunity---tourism. The airport is located in a very beautiful and historic city: New Bedford. This is a peaceful city with sea and blue sky. Besides, it is famous for whaling. The Whaling Museum, which we visited last semester, is a tribute to one of the most prosperous and colorful eras in New Bedford history. Therefore, the New Bedford Regional Airport can take an advantage of this special factor to attract more travelers.

Furthermore, adding new shuttle service business from different airports and innovation in publicity methods (such as Twitter, Facebook) can also be beneficial.



On-site Research in China

Our information is collected based on the onsite research from 4 main cities (Beijing, Tianjin, Shanghai, Guangzhou) and from over 15 main Chinese flight departments, airline companies and aviation universities. The universities we visited and researched include: Beijing Transportation University, Beijing University of Applied Technology, Beijing University of Aeronautics and Astronautics, Qinghua University and Civil Aviation University in City of Tianjin, which is the top civil aviation university in China. We conducted interviews with Deng Yu, the Director of office of academic affairs in School of Aerospace, Tsinghua University; Xia Juping, the international program manager in international division, Beijing University of Aeronautics and Astronautics; Yi Xiaosu, deputy Dean of Flying College; Dr Peng Zhaoqi, who is an expert in Transportation Management in Chinese Aviation/Airport and Shipping/Port in Beijing Transportation University; Professor Liu, director of international affairs in Beijing University of Applied Technology. We also conducted the interviews with Chinese aviation students. We not only collected valuable sources but also made direct and good contact with these aviation universities, which are beneficial to the BSU aviation department for making informed decisions about the future of its exchange program.

Through our interviews with Chinese aviation students who were admitted to the pilot training school in Canada, we learned that if students are trained and get commercial pilot licenses in foreign countries, they still need to receive the certified Chinese license in order to fly in China. Otherwise, they can only work for the foreign or the U.S. companies, but not for the Chinese companies. By talking with Beijing Applied Technology University, we found out about two options for managing pilot training with foreign pilot training universities and schools: (1) through a foreign representative company indirectly; (2) through universities directly.

Based on our onsite research and the interviews with aviation experts in China, the markets in China show huge potential. However, this kind of breakneck growth does bring problems. China cannot build airports fast enough, it has airspace constraints and, not least, it is facing a severe pilot shortage. There is an “airline marketing dilemma” in Chinese aviation market.

INNOVATIVE MARKETING PLAN

The “International Trade and Transportation Center”

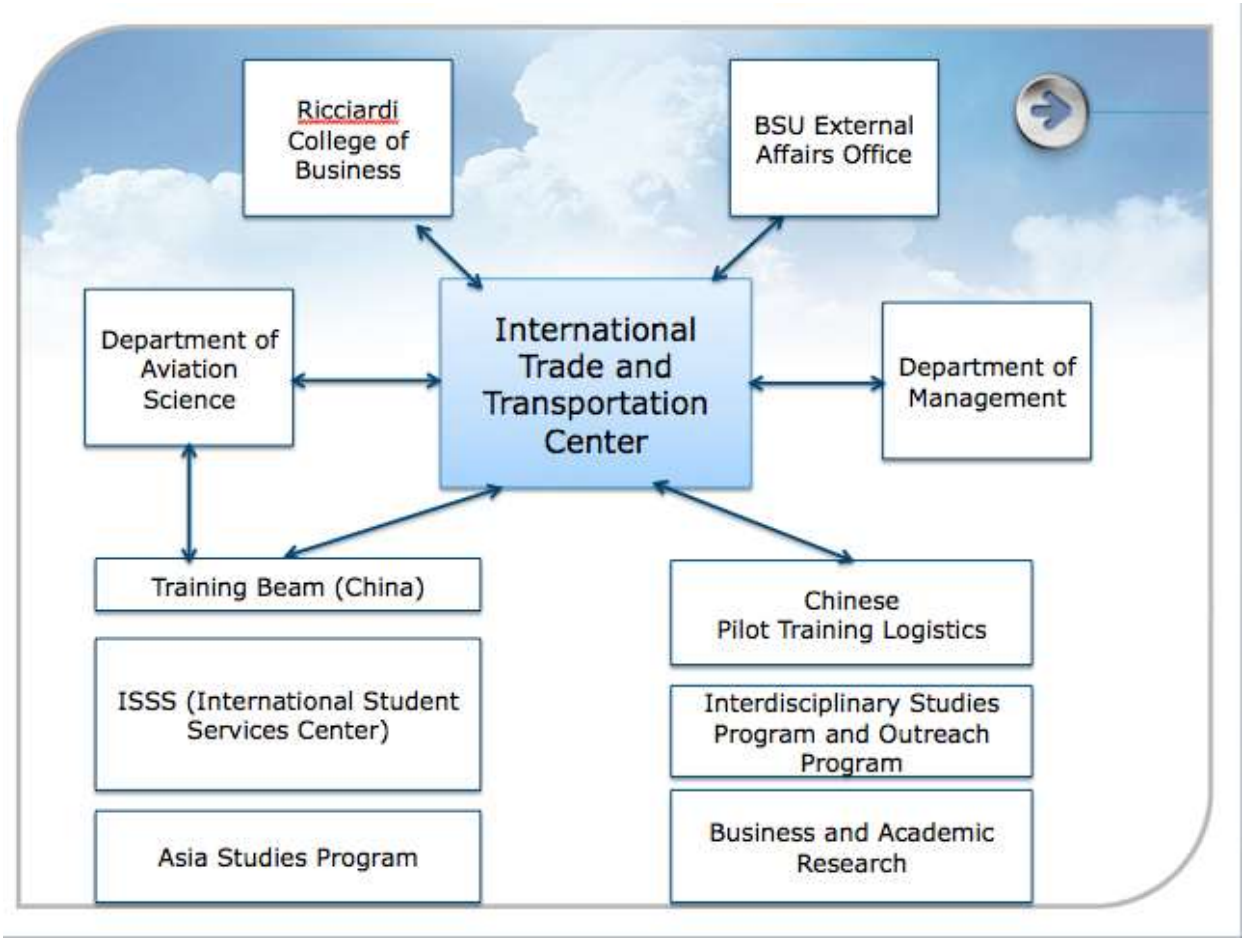
Based on the on-site research, we created an innovative idea of developing the “International Trade and Transportation Center”. The main purpose of it is to support the BSU international corporation from various aspects. The specific development plans of the “International Trade and Transportation Center” are as follows.

The International Trade and Transportation Center is a unique business and education center in New England region, housed in Ricciardi College of Business of Bridgewater State University. It is an interdisciplinary center between the Department of Management and Aviation Science to integrate business and transportation education and research on trade, logistics, supply chain, technology and aviation. It offers interdisciplinary and cross-functional courses, facilitates international business and aviation exchanges, supports pilot training programs, and organizes conferences and symposiums.

Bridgewater’s wide-ranging academic courses include a number of degrees, minor and certificate programs that are interdisciplinary in nature, encouraging students to think broadly and expand their focus beyond traditional academic boundaries. Most of the programs are in the area studies of arts, education, sciences, social science and humanities. However, there is no interdisciplinary course and program in the Ricciardi College of Business. The role of the center is to combine faculty expertise on trade, logistics, aviation and transportation, and to utilize the college resources to create a niche and brand for our undergraduate and graduate business and aviation programs. Transportation and Logistics Management MGMT 399 is the first interdisciplinary course offered this semester for this purpose. Student and faculty feedback on the course will be added after the semester, in order to submit a new and cross-departmental course proposal to governance in fall 2013. Minor, certificate programs and concentrations for transportation and logistics management will be the next step for proposal plan.

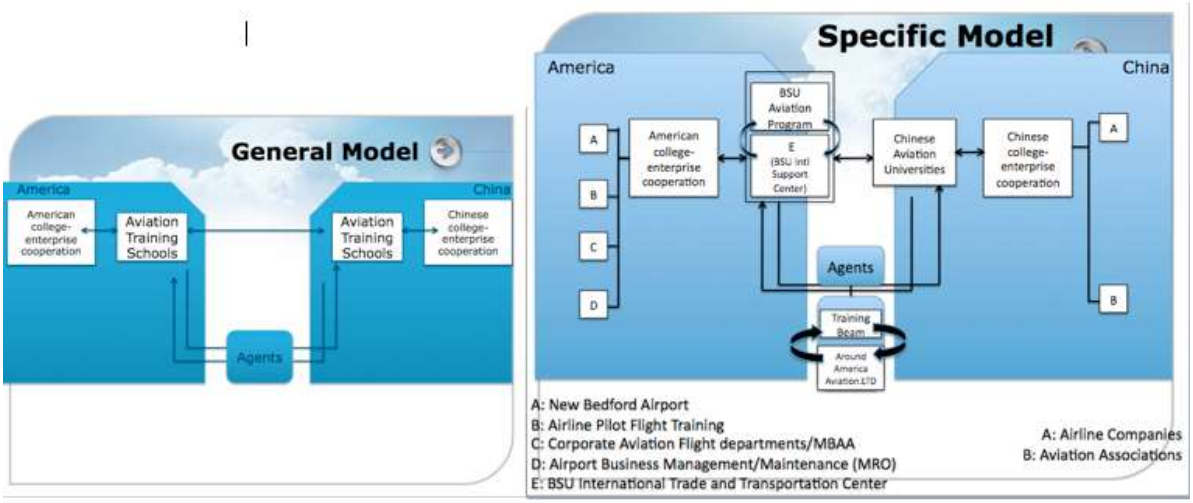
The International Trade and Transportation Center provides the in-house support to the BSU Aviation China program. It helps coordinate the schedules, logistics, planning and research for the project. It facilitates communication between TrainingBeam and BSU through emails, meetings and visits. It cooperates with the BSU International Engagement Center for the U.S. entry visas and legal documents. It also cooperates with Asia Studies Program for cultural exchanges and training. When the Chinese pilot students arrive in BSU, the Center will be responsible for coordination of all the logistics and subcontracts for studying and living arrangements, special housing and cooking accommodations, shopping trips, transportation between BSU and New Bedford Airport, on-site Chinese translation, aviation English training, communication with Chinese Consulate in New York, outside-state travel, entertainment and other activities that are requested. These detailed activities and arrangements are outside the responsibility, capability and availability of the BSU International

Programs and Asia Studies Program. Special support and expertise, and extra-spare time will be needed for this China project. It is essential that this International Trade and Transportation Center be set up in-house, together with the aviation and management faculty and staff, in order to support the BSU Aviation China program and to implement program tasks. In addition to the Chinese pilot training project, the International Trade and Transportation Center plans to apply the same model for the future Brazilian pilot training and other projects. The structure outline is summarized as below:



The Optimal Development Model

Based on all the resources we got from the on-site research, we create the general and specific models:



CONCLUSIONS

It is clear that 2012 will be a transition year between the industry we have watched for the last decade and the industry we will have in the future. We know that more and deeper changes are needed, but by the end of this decade we are likely to see an industry that is far healthier and bigger than it is today. And it just may have far fewer players.

In this ever-changing world, not moving means moving backward. Innovative international cooperation can create a win-win scenario and will certainly improve American aviation industry's success rates.

APPENDIX

(Primary Research Tool)

Interview (No.1)

Interviewee: New Bedford Regional Airport manager

Interview Objectives: Interviewer hope to know more the background information including the SWOT (strength, weakness, opportunity, threat) of the New Bedford Regional Airport in order to make a comprehensive marketing plan.

Questions:

1. Can you give us a brief introduction of the history of the New Bedford Regional Airport?
2. What are the mission and vision of the New Bedford Regional Airport?
3. What do you think of the location of the New Bedford Regional Airport?
4. Who and where are your customers?
5. What is the main commercial airline that the New Bedford Regional Airport provides?
6. What are the basic services that the New Bedford Regional Airport is currently providing?
7. Can you give us a brief introduction of the Bridgewater State University aviation education program in the New Bedford Regional Airport?
8. Which factor is going to be the main threat for the New Bedford Airport and the regional airport industry?
9. (There are two destinations from the New Bedford Regional Airport, Martha's Vineyard and Nantucket, which are operated by Cape air. Meanwhile, New England Fast Ferry has ferries to Martha's Vineyard.) New England Fast Ferry is a competitor for New Bedford Airport. What could be the competitive advantages for the New Bedford Regional Airport to attract more passengers to choose the airplane instead of the ferry?
10. What is the core competency for New Bedford Regional Airport? Is there any service that the regional airport can provide but the commercial airport cannot?
11. What are your opinions about the future of the New Bedford Regional Airport aviation education program? (According to the International Air Transport, China's aviation market is developing rapidly, and China has been continuously improving its aviation infrastructure.) Do you think there is a possibility for the New Bedford Airport to build up exchange aviation training program with Chinese aviation school?

Interview (No.2)

Interviewee: Students who are in the Bridgewater State University aviation program

Interview Objectives: Interviewer hopes to know more about the BSU aviation major students' opinions about the Bridgewater State University's aviation program at the New Bedford Regional Airport and its future cooperation with China in both commercial and educational aspects.

Questions:

1. How did you find out about the Bridgewater State University's aviation program at the New Bedford Regional Airport?
2. What role do you think this aviation program is going to play in your future career path?
3. Do you have any suggestions for the Bridgewater State University's aviation program?
4. What do you think of the future aviation cooperation program between America and China?
5. If you have an opportunity, will you think of beginning your aviation career in China? Why?
6. What do you think of the trend of the aviation market under the international market?

Interview (No.3)

Interviewee: CEO of the TrainingBeam Education,Ltd. in Guangzhou, China.

Interview Objectives: Interviewer hopes to know more about the New Bedford Regional Airport's marketing opportunities and its international cooperation model in both commercial and educational aspects

Questions:

1. You were a Bridgewater State University exchange student in China in 1986. Why did you make the decision to be an exchange student in China and what factors make you want to stay in China to begin your career?
2. How do you have the idea of building up aviation cooperation program between the Bridgewater State University and China at the first beginning?
3. Can you give us a brief introduction of the TrainingBeam Education Company? What are the mission and vision of your company?
4. You have been in China since 1986. What do you think is the biggest change in China over the past 20 years?
5. What do think of the aviation market in China?
6. What is the basic model of the aviation cooperation program going to be?
7. What are the benefits and future opportunities can this aviation cooperation program bring to Bridgewater State University and the society (including study abroad opportunities, job opportunities, better international cooperation with mutual understanding and respect, etc)