CHAPTER 2 Inventory of Existing Facilities and Conditions

2.1 BID WITHIN THE RHODE ISLAND AVIATION SYSTEM

There are six airports within Rhode Island currently owned by the **Rhode Island Department of Transportation** (**RIDOT**) and managed by the **Rhode Island Airport Corporation** (**RIAC**). The six state airports, their three-letter identifier codes and current service levels as defined by the Federal Aviation Administration (FAA) are as follows (from north to south):

- North Central Airport (SFZ) General Aviation/Reliever
- T. F. Green Airport (PVD) Primary Service, medium hub
- Quonset Airport (OQU) General Aviation/Reliever/Military
- Colonel Robert F. Wood Airpark (UUU) (formerly Newport Airport) General Aviation
- Westerly Airport (WST) Primary Service/non-hub
- Block Island Airport (BID) Primary Service/non-hub

RIAC

RIAC was formed in December 1992 as a semiautonomous subsidiary of the then Rhode Island Port Authority, now the Rhode Island Economic Development Corporation (RIEDC). The powers of the airport corporation are vested in its seven-member board of directors, six of whom are appointed by the governor and one who is appointed by the mayor of the City of Warwick.

The purpose of the formation of RIAC as a quasi-public state agency was to have it lease Rhode Island's six state airports from RIDOT for a period of thirty years in an effort to both rehabilitate and develop the aviation system in a more efficient and effective manner. As part of the leasing agreement, RIAC acts as the airports' sole sponsor, responsible for the design, construction, operation and maintenance of the airports, as well as for the supervision of all civil airports, landing areas, navigation facilities, flight schools and all other fixed base operators (FBO's).

RIAC does not receive any direct funding from the Rhode Island state government to help achieve these goals. In more direct terms, RIAC does not receive any state tax dollars. It must operate as a self-supporting entity, receiving financial support from FAA and revenue from its aviation resources and activities, i.e., tenant leases, landing fees, boarding fees, aircraft tie-down fees, fuel sales and so on. Supplemented by revenues from T.F. Green Airport, RIAC receives sufficient income to sustain the operation and maintenance of the state airport system.

Five of the state airports (all except T.F. Green) are managed on a day-to-day basis by **Hawthorne** Aviation Rhode Island, Inc., a fixed base operator/airport management firm. Hawthorne is under contract to RIAC to manage, maintain and promote the five state General Aviation (GA) airports for a flat annual fee plus expenses. However, it is RIAC that serves as the sponsor of the public use airports in the state.

The locations of the six state airports in Rhode Island are shown in Figure 2-1. Descriptive data of various sorts are presented in Tables 2-1 and 2-2.

| Table 2-1 General Airport Data, Rhode Island State Airports | | | | | | | Air | | |
|---|------------------------|-------------------------|--------------------|---------|--------------------------|------------------|-------|-----------------------|-----|
| Airport | 3-Letter Identifier | Location | Assoc. City | Sponsor | Manager | Service Level | NPIAS | Elevation MSL (ft) | Pla |
| North Central | SFZ | Smithfield / Lincoln | Pawtucket | RIAC | Hawthorne Aviation RI | GA/RL | Х | 441 | _ |
| T. F. Green | PVD | Warwick | Providence | RIAC | RIAC | PR | х | 55 | _ |
| Robert F. Wood | UUU | Middleto wn | Newport | RIAC | Hawthorne Aviation RI | GA | х | 172 | |
| Quonset | OQU | North Kingstown | North Kingstown | RIAC | Hawthorne Aviation RI | GA/RL | х | 19 | _ |
| Westerly | WST | Westerly | Westerly | RIAC | Hawthorne Aviation RI | PR | Х | 81 | _ |
| Block Island | BID | Block Island | New Shoreham | RIAC | Hawthorne Aviation RI | PR | X | 109 | |

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Source: Figure 640-02(2) from a draft of the Rhode Island Aviation System Plan Update, Wilbur Smith Associates and Edwards and Kelcey, 2003

2.2 THE HISTORY OF BLOCK ISLAND AIRPORT

As early as 1935, the Rhode Island State Division of Aeronautics was proposing plans to acquire land and to build a state airport on Block Island to help facilitate access and speed emergency evacuations. Although the advent of World War II spurred construction of Naval Air Stations at Quonset, Westerly and Charlestown, as well as shore-based anti-submarine facilities on Block Island, the airport plans were not acted upon until 1946-47, when two actions were taken. First, the Town of New Shoreham approved state legislation granting the authority to convey land to the state for use as an airport. Second, the building of a Block Island airport was approved by the then existing Commission on Coordination and Execution of Post-War Programs.

On July 15, 1950, the Block Island State Airport was officially opened with a single 2,000-foot runway (oriented east-west), a parking ramp, taxiways and a terminal building which accommodated the fixed base operators, airport operations, pilot facilities and a restaurant. In 1961, an additional 135.72 acres were acquired for the airport, and its runway length was increased 500 feet to 2,500 feet. An automatic weather station was put into service at the end of 1960, and a combined hangar and fire station was completed in 1962.

| | Runways | ARC | Length (ft) | Width (ft) | Surface (Condition) | Parallel Taxiway | Taxiway Width (ft) |
|----------------|---------|------|----------------|---------------|------------------------|---------------------|-----------------------|
| North Central | 5-23 | B-II | 5,000 | 150 | Asphalt (Fair) | Full | 50 |
| | 15-33 | B-I | 3,210 | 75 | Asphalt (Excellent) | Partial | 25 |
| T. F. Green | 5-23 | D-IV | 7,166 | 150 | Asphalt (NA) | Partial | - |
| | 16-34 | D-IV | 6,081 | 150 | Asphalt (NA) | Partial | - |
| Robert F. Wood | 4-22 | B-II | 2,999 | 75 | Asphalt (Good) | Full | 40 |
| | 16-34 | B-II | 2,623 | 75 | Asphalt (Good) | None | - |
| Quonset | 5-23 | B-II | 4,003 | 75 | Asphalt (Good) | Full | 50 |
| | 16-34 | D-IV | 7,500 | 150 | Asphalt (Excellent) | Full | 75 |
| Westerly | 7-25 | B-II | 4,010 | 100 | Asphalt (Poor) | Full | 35-50 |
| | 14-32 | B-II | 3,980 | 75 | Asphalt (Excellent) | Full | 35 |
| Block Island | 10-28 | A-II | 2,501 | 100 | Asphalt (Fair) | Partial | 35 - 40 |

Table 2-2 Current Airside Facilities Data, Rhode Island State Airports

Source: Figure 640-02(3) from a draft of the Rhode Island Aviation System Plan Update, Wilbur Smith Associates and Edwards and Kelcey, 2003

Commercial operations at the airport have been limited, but have included Viking Airways that provided air charter and air taxi services to T. F. Green, Logan International, Newport and Westerly airports. In 1970, New England Airlines began providing daily scheduled service to Westerly as a certified commuter airline, a service which continues to this day. About this time, an approach lighting system to Runway 10 was installed, after acquisition of additional land to the west (across Center Road).

RIAC

BLOCK ISLAND AIRPORT

In the late 1980's/early 1990's, the present configuration of the airport was completed with a major two-phase construction contract. In Phase I, Taxiway C was constructed from the terminal apron to within approximately 500 feet of the approach end of Runway 28; a turf tie-down area to the east of the terminal was prepared; the terminal apron was reconstructed and Taxiways A and B overlaid with fresh asphalt. Phase II created a standard 300-foot-long-by-150-foot-wide Runway Safety Area off the approach end of Runway 28, constructed more turf tie-down area to the west of the terminal and installed both a new subsurface wastewater disposal system for the terminal and a new potable water well.

In December 1992, the Rhode Island Airport Corporation (RIAC) was formed as a quasi-public state agency that would lease Rhode Island's six state airports (including Block Island State Airport) from the Rhode Island Department of Transportation (RIDOT) for a period of thirty years. At that time, RIAC shortened the airport's name to Block Island Airport. Since 1996, the airport has been managed by Hawthorne Aviation Rhode Island Inc., which is also responsible for the state's four other GA airports (Westerly, Quonset, North Central and Newport).

___ Inventory of Existing Facilities and Conditions



Figure 2-1 The State Airports of Rhode Island (incl. private airports)

Source: Figure 640-02(1) from a draft of the Rhode Island Aviation System Plan Update (ASPU), Wilbur Smith Associates and Edwards and Kelcey, 2003

2.3 THE COMMUNITY OF NEW SHOREHAM

BLOCK ISLAND AIRPORT

RIAC

Block Island Airport is located at the center of Block Island, officially known as the **Town of New Shoreham**, a 10-square-mile island located at the mouth of Long Island Sound, 14 miles from the mainland.

According to the 2000 U.S. Census, Block Island has a population of 1,010 residents, a 20.8 percent increase over 1990 totals. Although it has the lowest year-round population of any Rhode Island community, the population increases significantly during the summer season due to summer residents, vacationers and day-trippers from the mainland. The summer population increases to an estimated 15,000 persons or as much as 14-15 times the year-round population.

Block Island is seen as an attractive place for a primary or a second home and many island residents and town officials are cognizant of a need to plan and manage growth. The 2000 Census indicates there are 1,606 housing units; with only 1,010 year-round residents, there are more houses than people in the off-peak months. Come Memorial Day, the official beginning of the summer tourist season, the island pace quickens with the early arrival of summer residents and the first of the daytrippers. While many summer residents return to their primary mainland homes around Labor Day, a number of long-time island residents mention a "shoulder" season, noting that many summer and vacation homes are rented right through September and into October.

A variety of socioeconomic data comparing New Shoreham with Washington County, the state of Rhode Island and the entire United States are presented in Table 2-3.

| Demographics | Block Island | Washington County | Rhode Island | United States |
|---------------------------|-----------------|----------------------|-----------------|------------------|
| Population | 1,010 | 128,502 | 1,076,164 | 290,809,777 |
| Population density | 103.8 | 447.3 | 1,003.20 | 79.6 |
| Percent male | 47.30 | 50.40 | 48.00 | 49.10 |
| Percent female | 52.70 | 49.60 | 52.00 | 50.90 |
| Median age | 41.8 | 34.5 | 37.7 | 36.5 |
| People per household | 2.1 | 2.7 | 2.5 | 2.6 |
| Median household income | \$44,779 | \$56,708 | \$42,090 | \$41,994 |
| Average income per capita | \$29,188 | \$23,422 | \$21,688 | \$21,587 |
| Housing | | | | |
| Median home value | \$737,108 | \$150,700 | \$169,300 | \$170,800 |
| Median age of homes | 41.8 | 21.4 | 30.6 | 27.8 |
| Home appreciation | 11.50% | 11.70% | 14.80% | 7.70% |
| Homes - owned | 20.20% | 66.40% | 55.70% | 63.40% |
| Homes - rented | 9.20% | 19.00% | 37.10% | 21.70% |
| Homes - vacant | 70.60% | 14.70% | 7.10% | 14.80% |
| Commuting by bus | 0.00% | 0.80% | 2.50% | 2.00% |
| Commuting by carpool | 5.60% | 12.10% | 10.40% | 14.60% |
| Commuting by auto | 77.30% | 78.30% | 80.20% | 71.60% |
| Working at home | 6.40% | 2.90% | 2.20% | 5.60% |

Table 2-3 Socioeconomic Profile of Block Island

___ Inventory of Existing Facilities and Conditions

| Family Facts | Block | Washington | Rhode | United |
|---------------------------------|----------|------------|---------|---------|
| | | County | | |
| | 56.00% | 55.50% | 51.50% | 58.30% |
| Never married | 25.00% | 29.70% | 29.70% | 23.80% |
| Divorced | 9.00% | 7.50% | 9.40% | 7.70% |
| Widowed | 7.60% | 5.60% | 7.50% | 7.40% |
| Separated | 2.40% | 1.80% | 1.90% | 2.80% |
| Married - with children | 20.20% | 31.60% | 32.30% | 28.50% |
| Married - no children | 32.50% | 31.30% | 41.80% | 31.30% |
| Single – with children | 4.90% | 8.00% | 14.70% | 9.30% |
| Single - no children | 42.40% | 29.10% | 11.10% | 30.70% |
| Education | | | | |
| High school graduates | 94.70% | 85.60% | 78.00% | 80.40% |
| College degree – 2 year | 8.80% | 9.40% | 7.00% | 8.20% |
| College degree – 4 year | 32.60% | 25.30% | 15.90% | 14.90% |
| Graduate degree | 15.50% | 13.20% | 9.70% | 7.00% |
| Expenditures per student | \$12,520 | \$7,690 | \$7,651 | \$5,896 |
| Students per teacher | 6.3 | 13.8 | 13.1 | 16 |
| Students per librarian | n/a | 709 | 957 | 934 |
| Students per guidance counselor | n/a | 709 | 957 | 560 |
| Economy | | | | |
| Unemployment rate | 5.20% | 2.70% | 5.90% | 5.70% |
| Recent job growth | -1.00% | -0.20% | -0.90% | 1.40% |
| Future job growth | 9.60% | -0.20% | -0.90% | 10.50% |
| Sales tax | 7.00% | 7.00% | 7.00% | 5.63% |
| Income tax | 4.50% | 6.71% | 6.83% | 5.02% |
| Cost of living index | 220.9 | 103.2 | 107.9 | 100 |
| Health | | | | |
| Physicians per capita | 241.2 | 241.2 | 248.4 | 168.5 |
| Health cost index | 130.7 | 129.6 | 133.3 | 100 |
| Superfund site index | 80 | 80 | 56 | 71 |
| UV index | 3.6 | 3.6 | 3.6 | 4.3 |
| Climate | | | | |
| Altitude | 110 | 90 | 134 | 1,058 |
| Rainfall (inches annually) | 39.3 | 48.7 | 48.2 | 38.8 |
| Snowfall (inches annually) | 12.9 | 25.9 | 31 | 24.4 |
| January average low temp | 25.4 | 20.3 | 19.7 | 21.6 |
| July average high temp | 77 | 80.9 | 81.2 | 86.4 |
| Days of precipitation annually | 110 | 117 | 123 | 112 |
| Days mostly sunny annually | 211 | 206 | 202 | 205 |
| Crime | | | | |
| Violent crime risk index | 1 | 1.3 | 2.2 | 3 |
| Property crime risk index | 1 | 1.6 | 2.6 | 3.2 |

Airport Master Plan

Source: Sperling's BestPlaces at www.bestplaces.net/default.aspx

2.4 EXISTING AIRPORT CONDITIONS

BLOCK ISLAND AIRPORT

Like airports at Westerly and Newport in Rhode Island, as well as Barnstable, Nantucket and Martha's Vineyard in Massachusetts, operations at BID are extremely seasonal, with the majority occurring in the peak tourism season between Memorial Day and Labor Day. During the peak summer season, New England Airlines, the island's sole air carrier, has at least one scheduled departure and arrival between BID and Westerly Airport (WST) every hour. New England Airlines can increase the number of these scheduled operations significantly by adding flights (seats) to meet the passenger demand. In peak periods, such as a summer Friday afternoon, flights to/from BID operate essentially as a shuttle service, departing WST for BID as soon as the plane's seats are filled, regardless of time or schedule.

During the off-season, scheduled service is reduced to at least one scheduled departure to and arrival from WST every other hour. This scheduled commercial service plays a vital role for Block Island in that it is the fastest means of access (15-20 minutes via air vs. 60+ minutes via ferry) and acts as the only means of access to and from the island when the ferry service cannot operate due to high seas. The service also fills a variety of additional roles for island residents including carrying large volumes of freight year-round, including time-sensitive items like newspapers and critical parts for the repair and maintenance of key equipment on the island.

The speed and availability of air transport take on added significance when related to life care and emergency medical services. BID serves as the island's lifeline to the mainland for the emergency evacuation of individuals requiring immediate medical attention. Emergency evacuations that cannot utilize BID due to weather are limited by the schedule of the ferry service, or in emergency cases, a rough ride in a U.S. Coast Guard vessel.

As a general aviation facility, activity at BID tends to mirror the seasonality seen in its commercial service operations, with peak operations occurring between Memorial Day and Labor Day. During weekends in the peak summer months of July and August, transient parking (both paved and turf) is frequently filled. While some GA traffic at BID is generated by the island's only year-round restaurant (Bethany's Airport Diner located in the airport terminal), the vast majority of operations occur during the summer months.

RIAC

As an economic generator, BID produces positive economic benefits for the local and surrounding communities through a variety of avenues. Aviation services provided at the airport and aviation-related industries requiring use of the airport create jobs, which have an immediate and direct impact on the local economy. Additionally, visitors to Rhode Island who utilize the airport spend money for hotels, attractions, goods and services. Earnings and wages generated through these activities are spent on additional goods and services, creating additional jobs and additional economic impact. According to the *Rhode Island Airport Economic Impact Study* completed in 1999, the quantifiable airport economic impact of Block Island Airport in 1998 totaled \$11.8 million.¹

2.4.1 Airside Facilities

2.4.1.1 Runways/Taxiways

A summary of the key components of the existing runway and taxiway configuration at BID is presented in Table 2-4 and depicted in Figure 2-2.

¹ RIAC Economic Impact Study, Wilbur Smith Associates, 1998

| | Run | | |
|---|---------------------|-----------------|-------------------|
| Characteristic | 10 | 28 | |
| Length (feet) | 2,5 | - | |
| Width (feet) | 10 | 00 | - |
| Surface Type | Asp | halt | - |
| Surface Condition | Fa | ir | Airpo |
| Runway Surface Treatment | N | A | - Airpoi Maste |
| Runway Shoulder Width (feet) | 10 (Design | Standard) | Plan |
| Runway Shoulder Surface Type | Tu | ırf | - |
| Single Wheel Loading | 30,0 | 000 | - |
| Dual Wheel Loading | N | A | - |
| Dual Tandem Wheel Loading | N | A | - |
| Double Dual Tandem Wheel Loading | N | A | - |
| Lighting Edge Intensity | Medium | | - |
| Runway Markings | Nonprecision | Nonprecision | - |
| Runway Markings Condition | Poor | Poor | - |
| Visual Approach Slope Indicator (VASI) | Yes | No | - |
| Precision Approach Slope Indicator (PAPI) | No | Yes | |
| Runway Visual Range Indicator (RVR) | | | - |
| Runway End Identification Lights (REIL) | No | Yes | - |
| Approach Lights | MALSF | No | - |
| Instrument Approach | VOR/DME, RNAV (GPS) | VOR, RNAV (GPS) | - |
| Minimum Decision Height (MDH) (feet) | 540 MSL/431 AGL | 520 MSL/411 AGL | - |
| Visibility (mile(s)) | 3/4 | 1 | |
| Latitude | 41-10.06478N | 41-10.10942N | _ |
| Longitude | 071-34.94150W | 071-34.39947W | _ |
| Elevation of Runway Threshold (feet MSL) | 109 | 109 | _ |
| FAR Part 139 Air Carrier Runway [1] | N | 0 | _ |
| Full Parallel Taxiway | N | 0 | |

Table 2-4 Runway/Taxiway Characteristics, Existing Conditions, 2004

Note: 1. Federal Aviation Regulation (FAR) Part 139, *Certification of Airports*, regulates airports that are available to scheduled or unscheduled passenger operations with an aircraft of more than nine (9) passengers.



Runway 10-28. Runway 10-28 is aligned east-west and is 2,501 feet long by 100 feet wide. The relatively short runway length limits the type of aircraft that can operate at the airport to piston-engine singles, with relatively few multi-engine piston and turbine aircraft operations. For design purposes, Runway 10-28 has been classified with an Airport Reference Code (ARC) of A-II, with approach visibility minimums greater than ³/₄ mile.

The ARC is comprised of two components: a letter designation (A-D) followed by a Roman numeral (I-VI). The letter indicates the approach category of the critical aircraft and the Roman numeral designates the Design Group in terms of the aircraft's wingspan. Table 2-5 lists the aircraft approach categories and aircraft design groups as defined in FAA Advisory Circular (AC) 150/5300-13 *Airport Design*.

| Aircraft Approac | h Category | Design Group | |
|------------------|---------------------------|--------------|--------------------|
| Category | Approach Speed (knots) | Design Group | Wingspan (feet) |
| А | < 91 | I | < 49 |
| В | 91 – 121 | II | 49 - 79 |
| С | 121 – 141 | III | 80 - 118 |
| D | 141 – 166 | IV | 119 - 171 |
| E | > 166 | V | 172 - 214 |
| | | VI | 215 - 262 |

Table 2-5 Aircraft Approach Categories and Design Groups

Source: FAA AC 150/5300-13 Airport Design

The pavement is bituminous concrete that was last repaved in 1982 and is in fair condition. (Note: See Appendix A for an airport pavement evaluation dated January 2002.) The runway is lighted with a Medium Intensity Runway Lighting System (MIRLS), and is painted with nonprecision instrument approach markings, which are faded. The Runway 10 approach end has a Medium Approach Lighting System with Sequenced Flashers (MALSF), as well as a 4-box Visual Approach Slope Indicator (VASI) system on the right side for visual glide path guidance. The Runway 28 end does not have an approach lighting system, but does have Runway End Identification Lights (REIL) as well as a Precision Approach Path Indicator (PAPI) system on the left side for visual glide path guidance. There is also a lighted wind cone and segmented circle located on the field.

The Runway Safety Area (RSA) on the approach end of Runway 10 does not meet the current RSA standard for this type of nonprecision approach runway. As per FAA AC150/5300-13 *Airport Design*, Table 3-1, an A-II runway with visibility minimums not lower than ³/₄-statute mile requires a safety area on either end of the runway measuring 150 feet wide by 300 feet long. Currently, the safety area on Runway 10 approach end measures approximately 150 feet wide by 158 feet long. The Runway 28 approach end complies with the current RSA standard.

Key additional design criteria for an A-II runway are listed in Table 2-6.

RIAC

BLOCK

ISLAND

AIRPORT

| ltem | Dimension/ Other [1] | Source | |
|---------------------------------------|--|-------------------------------|---------|
| Representative Aircraft | B-N Islander Dornier Pilatus PC-6 | Appdx 13 [2] | |
| Approach Visibility Minimums | | | |
| Runway 10 | ¾-mile | U.S. Terminal Procedures (NE) | Airport |
| Runway 28 | 1-mile | | Master |
| Runway Separation Standards | | | i lali |
| Taxiway/Taxilane Centerline | 240 | Tbl 2-1 | |
| Aircraft Parking Area | 250 | Tbl 2-1 | |
| Taxiway/Taxilane Separation Standards | | | |
| Taxiway Centerline to: | | | |
| Parallel Taxiway/Taxilane Centerline | 105 | Tbl 2-3 | |
| Fixed/Movable Object | 65.5 | Tbl 2-3 | |
| Taxilane Centerline to: | | | |
| Parallel Taxilane Centerline | 97 | Tbl 2-3 | |
| Fixed/Movable Object | 57.5 | Tbl 2-3 | |
| Runway Design Standards | · · · | | |
| Runway Width | 75 | Tbl 3-1 | |
| Runway Shoulder Width | 10 | | |
| Runway Safety Area (RSA) Width | 150 | | |
| RSA Length Beyond Runway End | 300 | | |
| Runway Object Free Area (ROFA) Width | 500 | | |
| ROFA Length Beyond Runway End | 300 | | |
| Taxiway Dimensional Standards | <u> </u> | | |
| Taxiway Width | 35 | Tbl 4-1 | |
| Taxiway Shoulder Width | 10 | | |
| Taxiway Safety Area Width | 79 | | |
| Taxiway Object Free Area (TOFA) Width | 131 | | |
| Taxilane Object Free Area Width | 115 | | |
| FAR Part 77 Imaginary Surfaces | <u> </u> | | |
| Primary Surface Width | 500 | FAR Part 77 | |
| Transitional Surface Slope | 7:1 | Section 77.25 | |
| Approach Surfaces | <u>. </u> | | |
| Inner Edge Width | 500 | | |
| Outer Edge Width | 2,000 | | |

Table 2-6 Controlling Dimensions and Surfaces at Block Island Airport, ARC A-II

| Item | Dimension/ Other [1] | Source |
|------------------------------|-------------------------|---------|
| Horizontal Distance | 5,000 | |
| Slope | 20:1 | |
| Horizontal Surface | | |
| Elevation | 259 | |
| Radius | 5,000 | |
| Conical Surface | | |
| Horizontal Distance | 4,000 | |
| Slope | 20:1 | |
| Runway Protection Zone (RPZ) | | |
| Runway 10 | | Tbl 2-4 |
| Length | 1,700 | |
| Inner Width | 1,000 | |
| Outer Width | 1,510 | |
| Runway 28 | | |
| Length | 1,000 | |
| Inner Width | 500 | |
| Outer Width | 700 | |

Notes: 1. Dimensions are in feet, unless otherwise noted.

2. Table (Tbl) and appendix references are to tables/appendices in AC 150/5300-13 Airport Design.

Taxiways.

Taxiway A is a 40-foot-wide bituminous concrete stub taxiway connecting the western end of the aircraft parking area to Runway 10–28. It was last rehabilitated in 1990 and is in good condition. It has Medium Intensity Taxiway Lights (MITLs).

RIAC

BLOCK ISLAND AIRPORT

Taxiway B is a 40-foot-wide bituminous concrete taxiway stub connecting the eastern end of the aircraft parking area to Runway 10–28. It was last rehabilitated in 1990 and is in good condition. It also has MITLs.

Taxiway C is a 35-foot-wide partial parallel taxiway starting approximately 500 feet from the approach end of Runway 28 and terminating at Taxiway B. Its centerline separation from the centerline of Runway 10-28 is 240 feet, which meets FAA standards. It is made of bituminous concrete and is in good condition, having been constructed in 1990. It also has MITLs.

2.4.1.2 Apron/Aircraft Parking Areas

The paved aircraft parking apron is located immediately in front of the terminal building and contains approximately 12,700 square yards of bituminous concrete in good condition, having been rehabilitated in 1990. There are three marked commercial aircraft parking positions, as well as 21 marked tie-down positions on the apron. The turf areas located east and west of the paved aircraft parking area also are used as aircraft parking areas, particularly during peak summer weekends. Design plans for the turf parking areas to the east and west of the terminal indicate 22 and 37 tie-

down locations, respectively. Many more aircraft are parked in these locations during peak demand periods.

2.4.2 Landside Facilities

2.4.2.1 Terminal Building

The existing terminal building is a wood framed and concrete block structure of approximately 2,000 square feet (Figure 2-3). Designed in 1949, this building houses the airport manager's office/operations area, the commuter airline counter, a restaurant and a one-car garage. A rotating beacon is located on the roof. Utilities are all at capacity. This building was scheduled to be demolished by RIAC and a new terminal building constructed in 2002; however, this project has been temporarily deferred due to RIAC budgeting constraints resulting from the terrorist attacks of September 11, 2001. A site visit was conducted of the existing terminal in February 2002 as part of the ASPU. A technical memorandum summarizing the findings and observations of this site visit is located in Appendix B.

Airport Master Plan



Figure 2-3 BID Terminal Building Viewed from Landside

Source: ASPU photo database, Edwards and Kelcey

2.4.2.2 Hangar

The existing aircraft hangar is a wood-framed structure built in 1962 located west of the terminal building. It is approximately 3,000 square feet in area and houses the main electrical service for the airport. It appears to be structurally sound.

2.4.2.3 Auto Parking

Auto parking is located immediately to the east and north of the terminal building. The paved lot is designated as the short-term lot and can accommodate approximately 17 cars. The turf area located north of the short-term lot is used for long-term parking and can accommodate an estimated 80 cars. Six-eight additional parking spaces are located between the terminal and the adjacent hangar and are used for BID operations vehicles and as parking for Hawthorne, New England Airlines and diner employees.

2.4.2.4 Ground Support Equipment

Ground Support Equipment (GSE) currently at BID is as follows:

BLOCK ISLAND AIRPORT

- 1 Ford F250 with snowplow
- 1 riding lawnmower
- 1 John Deere lawn tractor with attachments

2.4.3 Airport Environs

2.4.3.1 Land Use

The majority of acreage to the west of the airport is undeveloped land, including agricultural areas, hardwood deciduous forest, softwood evergreen forest, mixed evergreen forest, cropland and brushland. To the east, land use is dominated by developed areas and is considered to be island's town center. This area consists of medium high-density residential (1/8- to 1/4-acre lots), medium density residential (1/4- to 1-acre lots) and medium low density residential (1- to 2-acre lots). This is the high activity center of the island, and where the Block Island Ferry docks.

To the south lies a number of large acreage residential properties. Abutting properties to the north consist of seasonal rentals, year-round residences and a large farm/lumber yard.

The airport is bound by residential connector roads: Center Road to the west and Old Town Road to the north.

2.4.3.2 Zoning

Town zoning mainly consists of large residential properties, zoned RA and having a required minimum of 120,000 square feet, about 2.75 acres. The majority of the airport's property boundary, especially to the south and west, is shared with Residential-A (RA) zones, which require 120,000-square-foot lots. The north and east boundaries of airport property abut Residential B (RB) zones, requiring a minimum of 60,000 square feet. or about 1.5 acres.

Abutting the property boundary to the west is a 28.9-acre conservation easement owned by the Block Island Conservancy, a non-profit land protection group.

RIAC

Maximum building height on the island varies up to 40 feet. The majority of residential zones, particularly RA and RB around the airport, restrict building height to a maximum of 35 feet. A number of large buildings in the Old Harbor Commercial District are at or very near the maximum height of 40 feet and are located about ³/₄ mile east of the airport.

Airport property is indicated on New Shoreham Plats 16 and 17. Total airport acreage is approximately 136 acres.

2.4.3.3 Runway Protection Zones

Runway Protection Zones (RPZ) are defined by the FAA simply as "an area off the runway end to enhance the protection of people and property on the ground." Generally this protection is exercised through the acquisition of property interests within the RPZ, and then clearing the RPZ areas (and maintaining them clear) of incompatible objects and activities. Incompatible or otherwise undesirable objects and activities include fuel handling and storage facilities, smoke and dust generating activities, errant or distracting lights to pilots on final approach, and those which produce glare or attract wildlife.

While it is desirable to clear all objects from the RPZ, some uses are permitted, provided they do not attract wildlife, are outside of the Runway Object Free Area (ROFA) and do not interfere with navigational aids. Automobile (passenger) parking facilities, rental car storage and ready lots and the like may be permitted provided these facilities are sited outside of that portion of the runway object free area which extends into the runway protection zone.

Land uses prohibited from the RPZ are residences, churches, schools, hospitals, office buildings, shopping centers and other similar places of public assembly.

The RPZ is trapezoidal in shape and centered about the extended runway centerline. The shape of the RPZ, which may be different for each runway end, is a function of the aircraft approach category (as set by the Airport Reference Code) and the approach visibility minimum associated with the runway end. At BID, the RPZ dimensions are different at the two runway ends, as indicated in Table 2-6 above.

Compatible land uses within the RPZ's at BID include natural undisturbed areas such as forest and wetland. Incompatible land uses within the RPZ's include medium density residential areas. Table 2-7 summarizes the development status of the RPZ's at BID as of 1995.

Table 2-7RPZ Development Status at BID, 1995

| Type of Use | Acres | Land Use |
|--------------|-------|----------|
| Developed | 2.9 | 11% |
| Undeveloped | 21.0 | 76% |
| Airport Land | 3.6 | 13% |
| Total | 27.5 | 100% |

Source: Figure 640-02(185) from a draft of the Rhode Island Aviation System Plan Update, Wilbur Smith Associates and Edwards and Kelcey, 2003

2.5 AIRSPACE AND TRAFFIC PATTERNS

2.5.1 Airspace

As an airport without an air traffic control tower, BID is considered an "uncontrolled" airport located in Class G (uncontrolled) airspace up to 700 feet Above Ground Level (AGL) where it then becomes Class E airspace for instrument approach purposes. Providence Approach Control (via radio frequency 125.75 MHz) manages all instrument arrivals and departures from Block Island Airport. When Providence Approach is not operating, Boston Center (124.85 MHz) assumes control.

BID maintains a 24-hour Unicom radio advisory facility for voluntary position reporting (CTAF – 123.0 MHz). This Unicom service may be used by pilots to acknowledge their presence to other aircraft and to request specific aircraft services. BID also maintains an **Automated Weather Observation Station** (AWOS-3 – 134.775 MHz) on the airport for weather advisories.

2.5.2 Standard Flight Procedures

BLOCK ISLAND AIRPORT

RIAC

BID has standard left-hand traffic patterns for operations on both Runway 10 and Runway 28. Traffic pattern altitude is the standard 1,000 feet above the indicated airport elevation, which is 109 feet above Mean Sea Level (MSL); therefore, BID's traffic pattern altitude is 1,109 feet MSL. There are no noise abatement procedures established for BID currently.

2.5.3 Navigation Aids and Instrument Approaches

Three types of navigation aids (NAVAIDS) are used by aircraft operating at BID: a **VOR/DME** and **RNAV (GPS)**.

The **SANDY POINT VOR** is physically located on BID. This VOR transmits an identification of "SEY" on 117.8 MHz. The VOR also has Distance Measuring Equipment (DME), which provides distance-to-runway information to the pilot.

The Global Positioning System (GPS) approaches established for Block Island are based on the airport identifier "BID".

Regarding instrument approaches, Runway 10 currently (November 2004) has VOR/DME and RNAV (GPS) approaches established, with a minimum visibility of ¾ mile and a Minimum Decision Height (MDH) of 431 feet above ground level or 540 feet above Mean Sea Level. Runway 28 currently has VOR and GPS approaches established, with a minimum visibility of one mile and a Minimum Decision Height of 411 feet above ground level (520 feet above Mean Sea Level). These approaches are illustrated in Appendix C.

2.6 OBSTRUCTIONS

RIAC completed a significant obstruction clearance program in the spring of 2004, capping a multiyear effort which involved significant community participation and extensive negotiations with private property owners. With few exceptions, the FAA-specified approach surfaces (20 run:1 rise with 7 run:1 rise side or transitional slopes) to BID are clear of obstructions. One exception is a low hill just to the south of the approach end to Runway 10. Here, RIAC has installed three (3) obstruction lights mounted on poles to warn aviators of the obstruction and any off-airport obstructions located south of Runway 10-28.

2.7 MISCELLANEOUS

Fixed Base Operators (FBO's) and tenants at BID are listed in Table 2-8.

2-17

| FBO/Tenant | Services/Activities |
|------------------------------------|--|
| Hawthorne Aviation Rhode Island | Fixed Base Operator (FBO), airport management, parking, passenger terminal and lounge, catering, car rentals, public telephone, pilot lounge/snooze room, restrooms |
| New England Airlines | Scheduled air carrier service provider between BID and WST; airplane charters; sightseeing tours/rides |
| Resort Air | Aircraft charters |
| Bethany's Airport Diner | Restaurant |

Airport Master Plan

| Table 2-8 | Fixed Base | Operators | and Tenants | s at BID |
|-----------|-------------------|-----------|-------------|----------|
| | I IMEN BUDE | operators | and rename | |