

U. S. ARMY

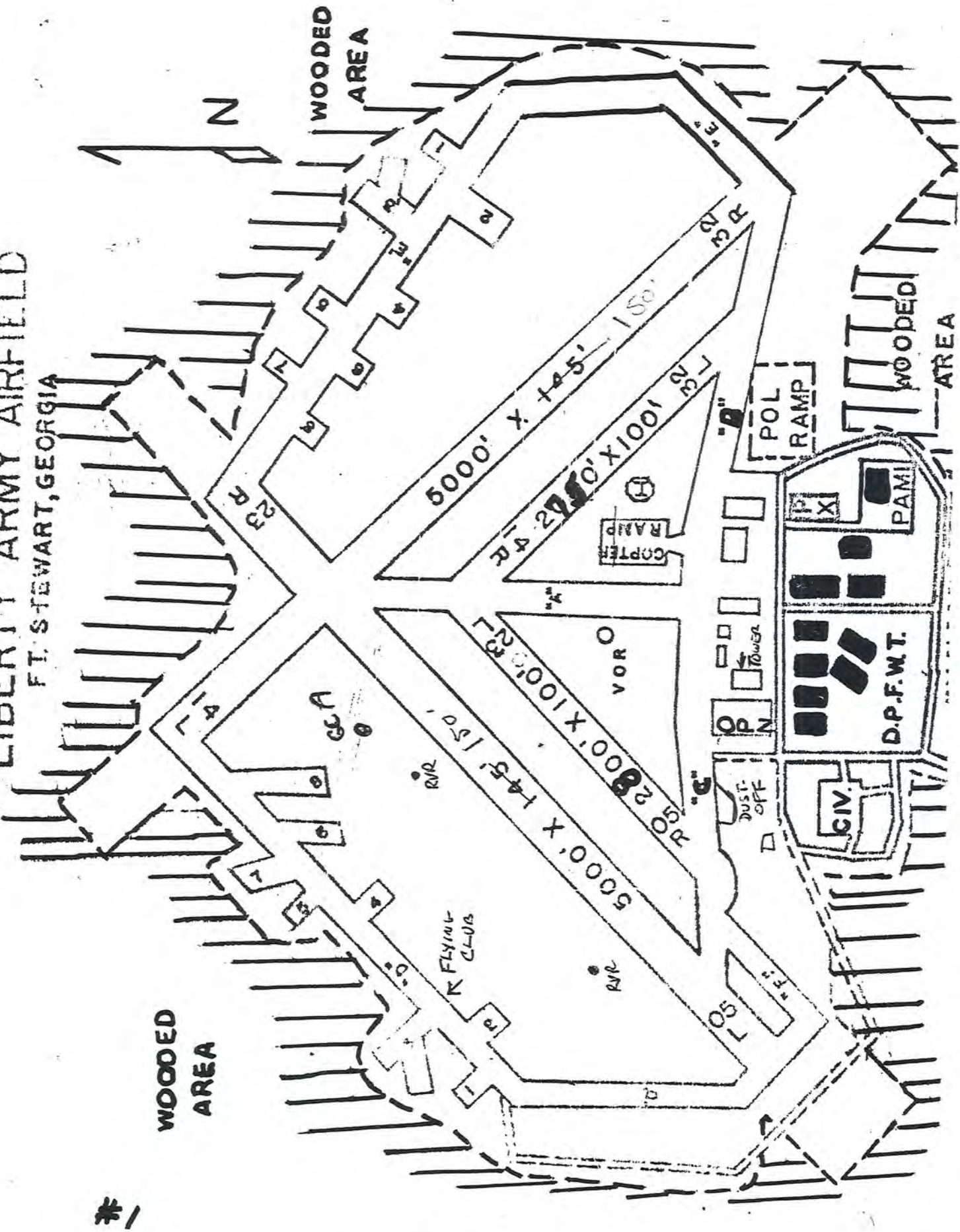
**ATC
FACILITY GUIDE**



LIBERTY ARMY AIRFIELD
FORT STEWART, GEORGIA

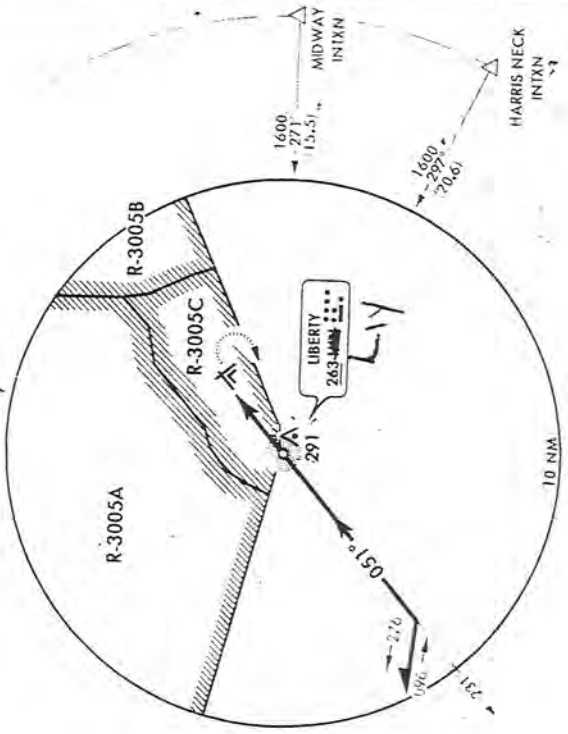
AVIATION

LIBERTY ARMY AIRFIELD
FT. STEWART, GEORGIA



#1

388.8 318.2 134.1 126.2
TOWER
229.5 247.0 127.8 126.2
GND CON
234.4 121.7



EMERG SAFE ALT 100 NM 2900

MIN SAFE ALT 25 NM 2200

FIELD ELEV 46

NOTE: 2100' avar ldg Rwy 5R
2150' avar ldg Rwy 32L

MISSED APPROACH
Right to 1600 return to RbN

Right within 10 NM
1600

ABEAM +HHN RbN
2.23°

MISSED APPROACH
Right to 1700 return to "LTY" RbN

Right within 10 NM
1700

ABEAM +HHN RbN
0.49°

LANDING MINIMA		RbN to Missed Approach 2.5 NM			
Straight-in	446 MSL	Knots	75	90	105
Circling	546 MSL	Min:Sec	2:00	1:40	1:26
			1:15	1:09	0:56

051° 2.5 NM From RbN

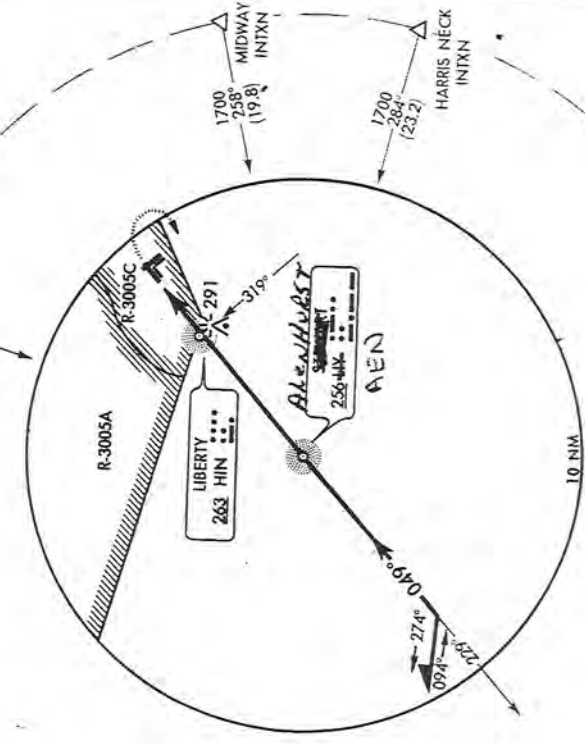
NDB(ADF) 1 RWY 5L

31°53'N - 81°34'W

102

FORT STEWART, GEORGIA
LIBERTY AAF

388.8 318.2 134.1 126.2
TOWER
229.5 247.0 127.8 126.2
GND CON
234.4 121.7



EMERG SAFE ALT 100 NM 2900

MIN SAFE ALT 25 NM 2200

FIELD ELEV 46

NOTE: 2100' avar ldg Rwy 5R
2150' avar ldg Rwy 32L

MISSED APPROACH
Right to 1700 return to "LTY" RbN

Right within 10 NM
1700

ABEAM +HHN RbN
0.49°

LANDING MINIMA		RbN to Missed Approach 8.1 NM			
Straight-in	446 MSL	Knots	75	90	105
Circling	546 MSL	Min:Sec	6:29	5:24	4:38
			4:03	3:44	3:02

049° 8.1 NM From "LTY" RbN

NDB (ADF) 2 RWY 5L

31°53'N - 81°34'W

103

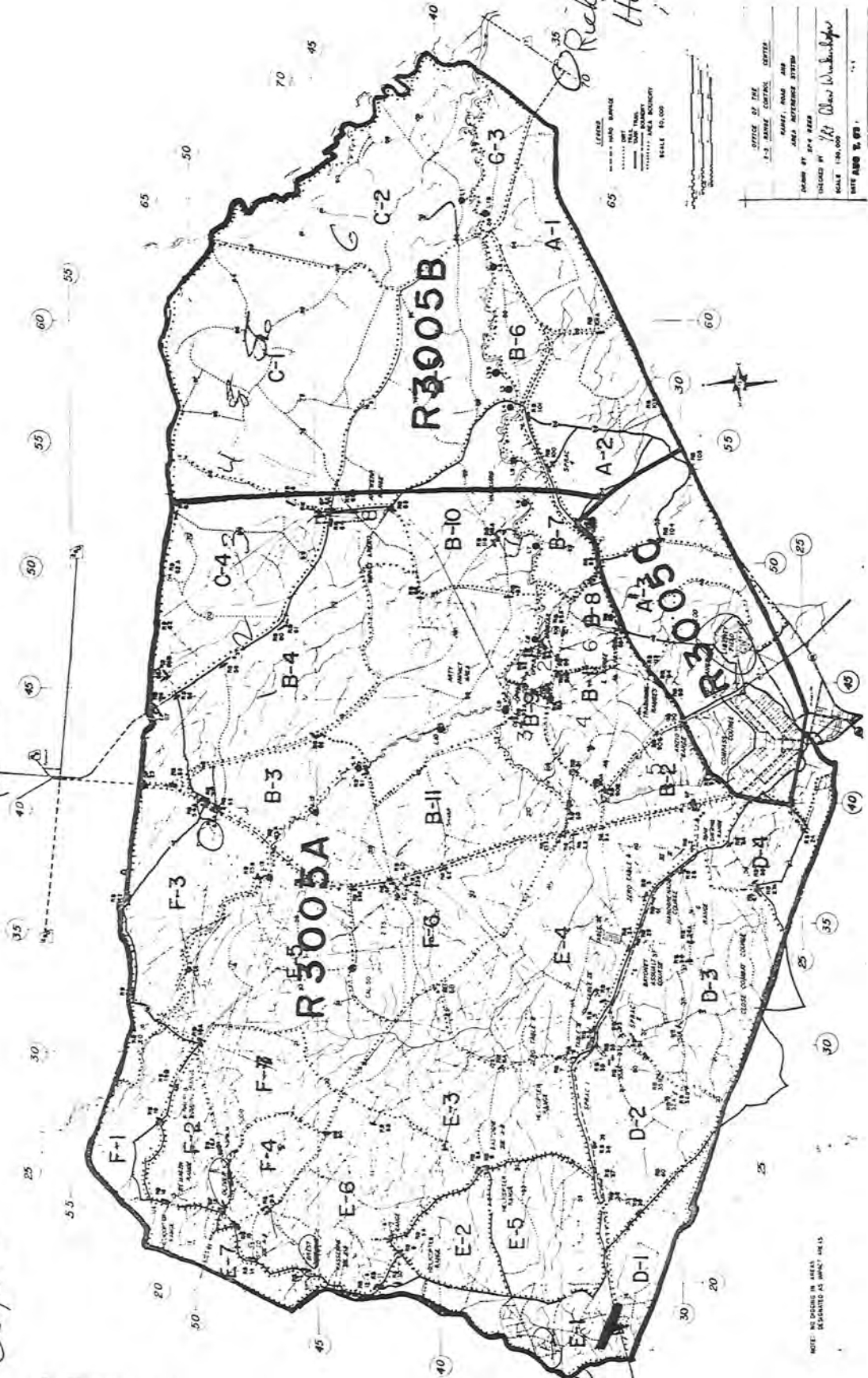
FORT STEWART, GEORGIA
LIBERTY AAF

#3

Redbrook

Clayton

Richard Hill



OFFICE OF THE
1:25,000 SCALE CONTOUR CENTER
NAME, ROAD AND
AREA REFERENCE SYSTEM
DRAWN BY SP4 KEK
CHECKED BY *1st Lt. Charles W. ...*
SCALE 1:100,000
DATE AUG 2, 63

ATTACHMENT D ATC FACILITY GUIDE

NOTE: IN THIS AREA
ELEVATIONS IN FEET

LIBERTY AAF
FACILITY STUDY GUIDE

I. General

A. The facility and you

- (1) Duty hours (explain in detail)
- (2) Lodging (explain in detail)
- (3) Company duties (explain in detail)

B. Training Program and Requirements

- (1) Class-room instruction of 40 hours, plus 40 hours of O.J.T. in the tower
- (2) Assigned to a shift for further O.J.T. and testing for FAA Junior Rating
- (3) Controller Evaluation annually

C. Eating Facilities

- (1) Mess hall in the Company area
- (2) Snack bar located behind the Control Tower

D. Transportation - by base taxi service

E. Parking - At the base of the tower in the rear for personal vehicles

II. Organized Structure

A. Military chain of Command

- (1) Watch Supervisor
- (2) Tower Chief

- (3) Operations NCOIC
- (4) Operations Officer
- (5) Company 1st Sgt
- (6) Company Commander

III. Preduty Familiarization

- A. Read the tower log for the previous shift
- B. Check with weather forecaster prior to signing on duty
- C. Check with Flight Commander for any special operations for the day
- D. Sign the tower log, in the appropriate line
- E. Receive your briefing from the shift going off duty

IV. Completion of Duty

- A. Brief relief of present operations and anything that will happen on their shift that you have prior knowledge of
- B. Clean up the tower
- C. Sign off duty and leave

K1 Local Airport Information

A. Airport

1. The Army is the Agency responsible for the Airport Operations
2. Draw Diagram - See attached drawing
 - a. Runways - 05L Length 5000', Width 150', Weight restrictions
- Single tandems 104,000 lbs, dual tandems - 125,000 lbs.
 - b. 23R 232° 5000 long 150' wide
C-130 Type 104,000 lbs
C-124 Type 125,000 lbs
 - c. 14L 5000'lg 150' wide, maximum weight 80,000 lbs
 - d. 32R 5000' lg 150'wide, maximum weight 80,000 lbs
 - e. 05R 052 2800 useable landing area 2100' max. wt. 8000 lbs.
 - f. 23L 232 2800' 100' 8000 lbs
 - g. 14R 2750' 100' 8000 lbs
 - h. 32L 2750 2150 100 8000 lbs
 - i. Other landing areas
Helipad north of main ramp NE of TWR
Any of the sod area for helicopters
 - j. Taxi Ways:
 - (1) 50' Center of F/D to APP 14 & 23
 - (2) 50' East end of ramp
 - (3) 50' West end of ramp to 05
 - (4) West side from app. 05L to approach 14L 50'
 - (5) From taxiway C to app 5L 50'
 - (6) East side of 32R to app 23R 50'

- k. Ramp Area
 - (1) Hanger Locations: West side of tower and below operations 2 on East side rear of main ramp
 - (2) Parking area - T41 and transient main ramp OIA and U6 Helicopter Parking Pad plus Med Evac Ships
- l. Runup areas inactive rims east end of main ramp taxiways
- m. Servicing area - Normal Parking Areas
- n. Base opns is located upstairs in Bldg 7704 West side of tower
- o. Helicopter Landing Pads: Helipad North of main ramp NE of tower
- p. Fire station bldg - West of tower
- 3. Services available
 - a. Fuel - JP4, 80/87 115/145
 - b. Oil - Oil for most A/C
 - c. Aircraft Repairs - Major for F/W assigned and minor for others
- 4. Airport Obstruction
 - a. Tower - 105'
 - b. T.VOR - 12'
 - c. Wind tee 6'
 - d. GCA antenna 12'
 - e. WX Transmisometer 8'
- 5. Surrounding area: Topography of the surrounding terrain is normally described as rolling hills, with an abundance of pine

trees. The soil is predominantly sandy with open swamps, streams, and patchy woods.

B. Military Operations

1. Type of operations

- a. Aviation school primary A & B phases
- b. UHL gunnery training
- c. LCI and cross country admin. F/TS
- d. NG FWQC & ~~Mohawk gunnery~~

2. Equipment

- a. T41
- b. U6A
- c. T42
- d. OVI
- e. UHLD
- f. OIA

C. Emergency Equipment

1. Ambulance - 1 3/4 ton with stretchers

2. Fire fighting equipment - 2 fire trucks as listed below

- a. (1) 1500 Fire Truck equipped with 200 gallons of foam and 900 gallons of water
- (2) 530B Fire Truck equipped with 40 gallons of foam and 300 gallons of water

3. Helicopter Rescue Equipment

2 fire ext. asbestos hood, crash kit. Limited amount of fire fighting equipment for immediate action in remote areas before the arrival of permanently stationed crash equipment.

K2 Positions of operation

A. Control Tower Cab

1. Positions

- a. Flight data
- b. Ground control
- c. Local control - (1) control of inbound landing traffic (2) control of closed traffic touch & go pattern
- d. Clearance delivery

2. Location in tower cab

- a. Ground control from center console position
- b. Local control and closed traffic controlled from either right or left hand console depending on R/W in use

3. Combinations

Flight data, ground control, clearance delivery, from center console

K3 Tower Cab Equipment

A. Radio communications equipment

1. Transmitters

- a. Console, communications control ²⁰~~10~~ channel OA 2055/FSW-8 left side of cab
- b. Console communication station, remote control OA3014/FSW-8, center position in cab
- c. Console communication control 20 channel OA2056/FSW-8 right side of cab

2. Receivers

- a. Same as above

3. Microphones
 - a. Primarily, magnetic, carbon as back up
 4. Frequencies, use of each
 - a. UHF 247.0, 229.5, 234.4
Monitor 243.0
 - b. UHF 127.35, 126.2, 121.7
 - c. Monitor 121.5
- B. Landline Communications Equipment
1. Intercom unit
 - a. Operations Officer, Operations Office, alert service, radio weather, crash
 2. Telephones
 - a. Commercial class A
 - b. Air traffic control GP 3889
 - c. Flight service station 40 GP 126
 - d. Air traffic control 30 GP 105
 - e. Direct line to operations dispatch section
 - f. Crash circuit (RED)
 3. Telautograph/Electrowriter
 - a. Electrowriter, weather reports and forecasts
- C. Recorders - Positions and each frequency is recorded
- D. Console instruments
1. Kolsman altimeter
 2. Wind direction - speed indicator
 3. 24 hour clock

E. Airport lighting

1. R/W lights high intensity lights on all main R/W
2. Taxiway lights, blue in color, fixed intensity
3. Threshold lights, green in color, at each end of R/W
4. Rotating beacon, military type, located on top of tower
5. Obstruction lights, all obstructions are properly lighted
6. Tetrahedron/Wind direction indicator, lighted wind "T"
free swing type lights controlled from tower
7. Tower cab lighting, controlled by switch on South end
8. Airport lighting control panel - on east side of cab

F. Miscellaneous equipment

1. Light signal gun hanging on ^{EAST}~~west~~ side of tower
2. Landing direction indicator (a) Tetrahedron, free swinging
type located directly in front of tower
3. Traffic counters located on both left and right console
4. Binoculars in tower
5. ~~Tower heating and cooling equipment located on south wall
of tower operated by a key switch. Call Engineers when out
of order~~

G. Emergency equipment tower

1. Emergency generator located at base of tower. In case of
outage, call radio maintenance.

K4 Letters, Handbooks, and Publications:

- A. U.S. Army Air Traffic Control Publications are located in the
bookcase in the Control Tower Cab.

B. Facility letters and memoranda are located in the bookcase in the control tower cab.

C. Letters of agreements are located in the bookcase in the control tower cab..

D. Reading binder/position binder are located in the bookcase in the control tower cab.

K5 Terminal area, Airway, and Route Structure:

A. Terminal Area

1. Control zone

a. Dimensions: Within a five mile radius of Liberty AAF (Lat. 31° 53' 20"N, Long. 81°33'45"W), within a 1.5 mile radius of Liberty County Airport (Lat. 31°47'22"N, Long. 81°38'15"W), within 2 miles each side of the 231° bearing from the Liberty RBN, extending from the 5 mile radius zone to 8 miles SW of the RBN; within 2 miles each side of the 049° bearing from the Stewart RBN, extending from the 5-mile radius zone to 2 miles NE of the RBN.

2mi EITHER SIDE 242° RADIAL T-VOR, EXTENDING FROM 5mi RADIUS ZONE TO 8 mi SW of T-VOR.

2. Terminal Area Navigational Aids

a. The Liberty T-VOR is located on Liberty AAF, frequency 110.8.

b. The Liberty RBN is located 2.5 miles southwest of Liberty AAF 231° magnetic, frequency 263KC. *FROM APP. END 5L*

c. Alleghurst RBN is located 8.1 miles southwest of Liberty AAF 229° magnetic, frequency 256KC. *FROM APP. END 5L*

3. Terrain Features

Liberty is located amidst many open swamps, streams, and patchy wooded areas.

4. Restricted and Prohibited Areas

Restricted are 3005 broken down into three areas, A, B, and C

*242
180

62*

*150
62

114*

and extends to 29,000 feet MSL. The restriction on 3005C is classified as an individual restricted area extending to 3,140 feet permitting flights through the area at or above 4,000 feet MSL.

5. Minimum Altitude

6. Approach Aids:

a. The Liberty RBN is located 2.5 miles southwest of Liberty AAF, 231° magnetic, frequency 263KC. FROM APP END SL

b. The Stewart RBN is located 8.1 miles southwest of Liberty AAF, 229° magnetic, frequency 256KC. FROM APP END SL

B. Climate/Weather factors:

1. General trends: Summers are hot and humid with frequent thunderstorms from July through August. Winters are short and mild. Although snowfall is almost negative, instrument flying conditions in winter are four to five times more predominant than in the warmer months.

C. Terminal Area Procedures:

1. Airport taxi speed

Taxi speed limit is 10 mph on the ramp and 15 mph on all taxiways.

2. Airport taxi patterns - as directed by tower.

3. Directing emergency equipment:

To alert the crash equipment of an emergency or pending emergency, the tower operator or shift supervisor will notify crash station by ringing the crash siren and immediately notify the dispatch section of the type or nature of the emergency, who will in turn notify the Dustoff Crew. Tower personnel will establish contact with the crash vehicles by radio and specify the runway and type of emergency.

4. Special Air Operation Procedures (Med. Evac, Rescue) One UH-ID Helicopter (call sign - Dustoff) is on standby next to building 7737 during

student flying. During an emergency, Dustoff will *CALL* on Frequency 229.5 UHF, 38.9 FM (also 121.5 VHF is necessary)

K6 A-one, two, or three letter indentifiers for:

1. T-VOR - ~~TIN~~ LIY
2. Radio Beacons:
 - a. - Liberty RBN - LIY
 - b. - Allenhurst RBN-AEN
3. Other Airports
 - a. Savannah (Travis Airport) - SAV
 - b. Hunter AAF - SVN

K7 Flight Data Position Duties

A. Duties (General)

1. Recording and posting clearances.
2. Relaying information received by radio, posting flight plans, arrival and departures.
3. Receiving and making telephone calls.
4. Recording visibility values and PIREPS and advising weather station.
5. Obtaining and recording weather information.
6. Operation of associated tower equipment.
7. Local operations as shown in facility memoranda.

B. Priorities:

1. Alerting emergency equipment.
2. Control data.
3. Weather information.

4. Information necessitating a NOTAM

5. Advisories and messages

K8 Interphone systems:

A. Location and use of associated equipment. We have a direct line to Base Operations. The phone is located on top of the second console from left to right.

K9 Voice Intelligibility:

A. Importance. When talking to other stations, facilities or to aircraft, speak clearly so as not to have to repeat.

B. Watch supervisors will monitor controllers on his shift for clarity and phraseology.

K10 Interphone message format:

A. Importance of Standardized Procedure:

Standardized procedures must be used at all times.

B. Types and priorities of calls.

1. Emergency

2. Control coordination and advisory

3. Flight data

4. Other general information

C. Standard Procedure

1. Proper routing of calls

2. Call up technique

3. Answering technique

4. Procedure of relaying data

5. Acknowledgements and sign off technique

6. Local additional procedure

D. Time limits for relay of certain data: N/A

K11 Standard Interphone Phraseology:

A. Purpose and Importance

1. Standardize communications

2. Expedite communications

3. Avoid misunderstanding

B. Air traffic control procedures handbook

a - Number - TM 11-2557-29

K12 Interphone Failure Procedure:

A. Need for prescribed procedures

1. Prompt action required - call operations as soon as possible, who will in turn notify the telephone company. DIAL "0" ASK OPERATOR FOR SAV. AD 2-9061 IDENTIFY LINE OUT BY NUMBER

B. Methods of alternate relay

1. Commercial telephone

2. Intercom

GP 3889, GP 30-105, GP 40-126j

K13 Weather Information

A. Elements of a weather report. Weather reports are sent out in the following order:

1. Station identifiers

2. Sky condition and ceiling

3. Visibility

4. Weather phenomena and obstructions to vision

5. Sea level pressure in millibars

6. Temperature

7. Dew point/temperature
8. Wind
9. Altimeter setting
10. Remarks

B. The following is a breakdown and explanation of each of the ten parts of a Teletype Sequence Report.





1. The station identifier is made up of three letters in the U.S. and Mexico and two letters in Canada. They are the same identifiers used in navigation publications.

2. Sky condition: Standardized symbols indicate the amount of sky covered by clouds or the amount obscured by surface based phenomena. Reports contain the height of the base of each cloud layer indicated by a sky condition symbol. When the base of the cloud layers are below 20,000 ft., The base of each layer is reported in hundreds of feet above the surface.

Cirriiform cloud heights are reported if the cloud base has been determined accurately. If not, there are two ways to indicate the presence of high clouds.

1. First when the high clouds do not constitute a ceiling the sky condition symbol is preceded by a slash (/). Second when they constitute a ceiling the sky condition symbol is preceded by a U.

The amount of sky covered is represented by symbols, as follows:

- a.  - clear - less than 1/10 covered
- b.  - Scattered - 1/10 to 5/10 covered
- c.  - Broken - 6/10 to 9/10 covered
- d.  - Overcast - over 9/10 covered

e. -X - Partial Obscuration - 1/10 to 9/10 obscured

f. X - Obscured - Over 9/10 obscured

A minus (-) sign preceding a symbol (\ominus \oplus) indicates the layer is thin. A plus (+) sign indicates the layer is unusually dark. When fog, haze, smoke, dust, and several forms of precipitation exist at the surface, the sky may be totally or partially obscured. An obscuration (X) is reported when more than 9/10 of the sky is hidden by surface - based obscuring weather phenomena. In this situation, the limit of the observers vertical visibility over the point of observation is reported as the ceiling height. Thus, the altitude indicated is the vertical visibility into the obscuration, not the height to the base of the obscuration.

When the sky is only partially obscured (1/10 to 9/10) a partial obscuration (-X) is reported. Since this does not restrict the vertical visibility over the point of observation any cloud layers are reported after the (-X).

The ceiling is the lowest condition reported as \ominus , \oplus , or X that is not prefixed by a minus sign. When a ceiling is reported, the method by which the ceiling was determined must precede the height of the symbol. The following are the letters and their meanings:

1. A Aircraft (Pilot Report)
2. B Balloon (with known rate of ascent)
3. E Estimated (not used for cirriform layers)
4. M Measured (normally with a ceilometer)
5. W Indefinite (used with obscured conditions)
6. R Radar or Radiosonde
7. D Estimated (used with persistent cirriform layers only, and must have been accurately measured within the past six hours)

8. U Unknown ceiling height used with cirriform layers

Visibility: The visibility is reported in statute miles after the sky condition. When restricted or irregular, the visibility may be reported by one or more of the following requirements.

Prevailing Visibility: This is the greatest visibility that exists over half or more than half of the horizon. When the visibility varies in different quadrants, the prevailing visibility is reported.

Reportable Values: When the visibility is less than three miles, it is reported in miles and fractions of miles. When the visibility is between three and fifteen miles, it is reported to the nearest mile. When it is in excess of 15 miles, it is reported to the nearest five miles.

Runway Visual Range (RVR) and Runway Visibility (RVV):

RVR is the horizontal distance an aviator will see down the runway from the approach end. The RVR is reported in hundreds of feet and is measured by an instrument called a transmissometer. Runway visibility is the distance an observer can see down the runway standing on the approach end. This is reported in miles and fractions.

Weather phenomena and Obstructions to Vision: Weather phenomena are tornadoes, waterspouts, funnel clouds, thunderstorms, and precipitation in any form. The weather phenomena reported by the following letter code:

A hail, AP small hail, E sleet, EW sleet showers, IC ice crystals, L drizzle, R rain, RW rain showers, ZR freezing rain, ZL freezing drizzle, S snow, SG snow grains, SP snow pellets, SW snow showers, T Thunderstorms, T+ heavy thunderstorms.

Intensities indicated as follows except T, A, and AP:

--very light, - light, + heavy. No sign is used with moderate.

Obstructions to Vision: These are not reported when the visibility is reported as six miles or less; a weather phenomena or obstruction to vision must be shown. Letters are used to show obstructions to vision as follows:

F fog, GF ground fog, BS blowing snow, BN blowing sand, BD blowing dust, IF ice fog, H haze, K smoke, D dust, BY blowing spray.

+ or - are not used with obstructions to vision.

Sea Level Pressure:

Sea level pressure is reported in three figures representing tens, units, and tenths of millibars. One decimal place is pointed off and the reported figures are preceded with 9 or 10 whichever will make the complete figure read near 1013.2 millibars. Example: 012 = 1001.2 mbs; 201 = 1020.1 mbs; 906 = 990.6 mbs; 999 = 999.9 mbs.

Temperature:

The surface temperature is reported to the nearest whole Fahrenheit degree. A minus sign preceding the temperature figure indicates the temperature is below zero.

Dew Point Temperature:

The dew point temperature is reported in degrees Fahrenheit.

Wind:

The surface wind direction and speed is reported in degrees and knots by four numerals. The first two are the direction to the nearest 10°, the second two indicate the speed to the nearest knot. Example: 0405 = 040° at 5 kts; 0915 = 090° at 15 kts; 1803 = 180 at 3 kts. Calm winds are reported by four zeros (0000). Gusts are sudden intermittent increases in wind speed. This is reported with a G following the average wind speed, with the peak speed following the G. Example: 15G25. Squalls are strong winds that increase

abruptly in speed and maintain a specified peak speed over a period of 2 minutes or more, in this a Q is used instead of a G. Example: 20Q36. Wind shifts are reported in the remarks section with the time of the shift WSHFT 1200E.

Altimeter Setting:

The altimeter setting is derived from the station pressure corrected to sea level. It is reported by a three digit group without a decimal point.

Example: 003 = 30.03; 987 = 29.87.

Remarks:

The remarks are transmitted after the altimeter setting and in some cases are more valuable than the body of the report. Common remarks can be found in TM 1-300.

Other weather data:

Winds aloft. These are of interest to the pilot rather than to the controller, however, when the pilot is airborne, it is the controller that he asks for the information. At LAAF you may obtain this information from the local weather service.

Radar weather reports:

These are obtained from Savannah through the local weather service.

Forecasts: The two types of forecasts of interest to the controller are Teletype forecasts and locally prepared forecasts. First the area forecast: These are sent over teletype at about 0100Z, 0700Z, 1300Z, and 1900Z. They give the expected conditions for a 12 hour period and cover a small geographical area. Terminal forecasts are prepared four times daily at about 500 Military and civilian terminals. They are valid for either 12 or 24 hour periods.

Local forecasts: These are prepared by the station duty forecaster giving the expected weather conditions in the local flying area. At LAAF they are prepared four times a day at 0800, 1400, 2000, and 2300, to cover a 24 hour period. Only the first 12 hours of this forecast comes over the electrowriter in the tower. Significant weather change reporting procedures at LAAF consist of transmitting the information over tower frequencies. When a SIGMET or MET Watch Advisory comes over the electrowriter, it is passed on to the pilots flying in the local area.

The hourly sequence report comes over the electrowriter, all other weather information is obtained by calling the weather service. The electrowriter is located on the left side of the left console.

K14 NOTAMS

A. Purpose

Notice to Airmen or NOTAMS are issued to make pilots aware of information regarding the establishment, condition or change of radio aids, airpdrmes, and lighting facilities, dangers to aircraft in flight or search and rescue facilities. NOTAMS are sent in five letter code groups. The first letter is a Q. This was chosen to avoid conflict with any assigned call sign. The second and third letters identify the facility, service or danger to aircraft in flight being reported upon. The fourth and fifth letters denote the status of operation of the facility service or danger to aircraft in flight being reported upon.

B. NOTAMS are broken down into three basic types;

1. Navigation aids
2. Hazards on airports and in flight
3. Lighting

A breakdown of the code can be found in the Flight Planning Publication or Airman's Information Manual.

C. Receipt and origination of NOTAMS

Our NOTAMS are received two ways. One is the daily NOTAM summary received on teletype from weather service. The other is by phone from Flight Service. At anytime a Radio Aid goes out, or something goes wrong with any of the field lighting or a hazard exists on the airport, you notify operations and they will send a NOTAM if it is needed. All NOTAMS are on display in operations. Those in effect at LAAF will be posted in the tower so the controller may advise the pilots.

K15 Standby Communications Equipment

A. The only standby equipment in the tower is a UHF back up AN/TRC 68. This has eighteen preset channels plus guard. All other equipment is in ground electronics. Any time any radio equipment goes out, you notify them via the telephone or the intercom.

K16 SCATANA Procedures

The purpose of SCATANA is to deny an enemy the use of navigational aids by shutting them down in an emergency. When there is a SCATANA Test you will be notified by ARTC Jax. Upon receipt of a test, notify Operations and Radio Maintenance. All controllers are to read and be familiar with information and instructions in the SCATANA notebook in the tower.

K17 Recording Equipment

A. The ~~only~~ frequencies recorded at this time are ^{ALL} ~~127.35, 126.2, 247.0 and 229.5.~~ The ~~recorders are: Multi-Channel Recorder Type 5CA. All recorder operation and changing of tapes are handled by radio maintainance.~~

K18 Processing Daily Records

A. The flight strips are kept at the flight data position. There are two types inbound and outbound. At the end of the day, the strips are counted by outbound IFR, SVFR, VFR, and inbound IFR, SVFR, and VFR. Local traffic is counted with mechanical counters. At the close of the day the traffic count is logged on DA Form 1968. The flight strips are taken to operations for storage.

K19 Visibility Observations

A. All controllers will attend a weather class conducted by a person from the Weather Service. After passing the weather observation test you will be issued a Limited Weather Observers Certificate.

K20 Visual Signals

A. The tower has ~~one~~ ^{Two} portable traffic light gun. It operates on 110V current. The meaning of the signals are on a card pasted to the light gun.

B. The rotating beacon is on top of the tower. It is turned on between sunrise and sunset when the Control Zone is below VFR minimums. It is on always between sunset and sunrise.

C. The wind tee is located north of the tower between the parking ramp and runway 5R - 23L and center Taxi-way. The lights are turned on from sunset to sunrise. If the control zone is below VFR the lights are set on flashing by means of a switch on the left side of the field lighting panel.

D. Flags are hung from the guard rail outside the tower for use of "A" phase students. A ~~green~~ ^{White} flag means unrestricted solo. ~~Orange~~ ^{Blue} is designated solo's in the traffic pattern, and red is dual flights only.

K21 Standard Radio Phraseology

A. Purpose and Importance

The standarization of radio phraseology in the control of air traffic cannot be over emphasized. Imagine the confusion at busy airports if each tower controller used a different phraseology. The safe, orderly and expeditious flow of air traffic requires each controller and pilot to use words and phrases that are standard throughout the world. This standardization reduces misunderstanding and expedites communication thus increasing safety.

B. Procedures

1. Words and Phrases

In air traffic control, it is important to keep radio transmissions and length of transmissions to a minimum. Unnecessary words or phrases tends to confuse rather than benefit a pilot. Get the message across but make it brief and to the point.

C. Phonetic Alphabet

Use the ICAO phonetic alphabet below to clarify individual letters as necessary.

A - ALFA	H - HOTEL	O - OSCAR	V - VICTOR
B - BRAVO	I - INDIA	P - PAPA	W - WHISKEY
C - CHARLIE	J - JULIETT	Q - QUEBEC	X - XRAY
D - DELTA	K - KILO	R - ROMEO	Y - YANKEE
E - ECHO	L - LIMA	S - SIERRA	Z - ZULA
F - FOXTROT	M - MIKE	T - TANGO	
G - GOLF	N - NOVEMBER	U - UNIFORM	

D. Figures

1. Ceiling heights - spoken as whole numbers up through 10,000

Example: 8,000 (eight thousand) 6,500 (six thousand five hundred) 11,000 and above - thousand digits spoken individually followed by whole number for the hundred column. Example: 12,500 (one two thousand five hundred)

2. Cruising and flight levels

a. Altitudes - State the separate digits of the thousands plus the hundreds. Example: 17,900 (one seven thousand nine hundred)

b. Flight levels - state the words "flight level" followed by the separate digits of the flight level. Example: 180 (flight level one eight zero).

3. Use of digits: Serial numbers - state the separate digits.

E. Statement of Time

1. State the word "time" followed by the digits as specified.

a. General time information - the four digits of the hour and minutes based on the 24 hr clock.

b. In communications with other facilities, agencies, and military or air carrier aircraft - The digits of the hour and minutes in terms of Greenwich mean time (GMT)

c. Time check - The digits of the hour, minutes, and nearest quarter minute.

2. Abbreviated time - The separate digits of the minutes only.

F. Field elevation - State the words "field elevation" followed by the separate digit of the elevation. Example: Elevation 712 (field elevation seven one two)

K22 Taxi clearances - aircraft and vehicles

A. Taxi clearance composition

1. Identification (Blue 45) (R61740)
2. Clearance limit (Runway 23) (Parking area)
3. Route (via Taxiway "A") (Runway 32)
4. Special instructions (hold short of runway)

Example: Blue 45, cleared to Runway 23 right via taxiway "A". Call for clearance to cross runway 23 left.

B. Relaying ATC clearances, advisories and information

1. ATC clearance delivery - Always issue ATC clearances to pilot "word for word" as received from clearing facility. For departing aircraft, issue ATC clearance on ground control freq., or clearance delivery freq. to aircraft in the air, appropriate ground to air freq.

2. When issuing clearances always speak in a clear and concise manner.

3. Issue advisories regarding traffic delays as soon as possible so pilots can plan their flight accordingly. Sometimes a pilot may elect to delay on the ground rather than hold in a stack at destination.

C. Clearances to vehicular traffic

1. Always be alert for vehicular traffic on or near the airport. Issue clearance to cross runways, taxiways, etc, via radio or light gun.

2. Keep pilots advised of any vehicular traffic that could cause a safety hazard.

K23 Federal Aviation Regulation: ATC Procedures

A. Federal air regulations

1. General flight rules
 2. Visual flight rules
- B. Air traffic control procedures
1. Provide airport traffic control service based only upon observed or known traffic and airport conditions which might, in your judgement, constitute a hazard. These include parachutists within control zones, vehicular traffic, large flocks of birds in the vicinity of airport and temporary obstructions on or near the airport.
 2. Issue traffic information by describing the relative position of the traffic in an easy to understand manner, such as "to your right" or "ahead of you" instead of by local terminology or compass directions.
 3. Issue field information necessary for an aircraft's safe operation in time for it to be usefull to the pilot. This will include:
 - a. construction work on or adjacent to the movement area
 - b. rough portions of the movement area
 - c. braking conditions
 - d. parked aircraft on the movement area
 - e. irregular operations of part or all of field lighting system
- C. You may transmit to pilots or other ATC facilities, without consulting the weather reporting station, any elements of weather information derived directly from instruments or radar. Observed general weather conditions such as "large breaks in overcast", visibility lowering to south", which do not include specific values, may also be transmitted. If you are properly certificated you may give visibility reports to the weather station.
- D. Use air traffic control light signals (as set forth in TM-29) to

control aircraft and vehicular traffic on the movement area when radio communications cannot be employed.

E. Separation: Since the major part of the traffic at LAAF is category #1, you may use reduced separation as stated in "TM 29".

F. Departing aircraft - Issue the following information to all departing aircraft:

1. Runway in use
2. Surface winds
3. Altimeter
4. Time check
5. Density altitude

G. Arriving aircraft - issue the following information to arriving aircraft:

1. Specific aircraft traffic pattern information
2. Runway in use
3. Wind
4. Altimeter
5. Clearance to land

H. Preventative Control - The only preventative control employed at LAAF is "ten second departure interval".

1. Emergency Procedures:

To alert the crash equipment of an emergency or pending emergency, the tower operator or shift supervisor will notify crash station by activating the crash siren and immediately notify the dispatch section of operations, who will in turn notify the dustoff crew.

K23 Airport Traffic Flow

A. Traffic patterns (landing)

1. Runway 5L, 5R = Right traffic pattern

Runway 14L, 14R = Right traffic pattern

Runway 23L, 23R = Left traffic pattern

Runway 32L, 32R = Left traffic pattern

Closed traffic pattern (touch & go)

Runway 5L = Left traffic pattern

Runway 14L = Left traffic pattern

Runway 23R = Right traffic pattern

Runway 32R = Right traffic pattern

2. Pattern entrance and downwind legs will be flown at 1000 ft.

B. Local airport rules and regulations

1. Landing and takeoff rules

a. During student recovery or departure periods, no non-student aircraft will be allowed to enter traffic pattern unless an emergency exists.

b. Closed traffic pattern will be terminated thirty minutes prior to student recovery time.

c. During student departure periods a ten second departure interval may be authorized.

d. Inside runways are restricted to category 1 aircraft only.

e. Additional regulations are contained in "USAAVNS Element Regulation #95-1".

2. Entering traffic pattern (daylight)

a. Students returning to LAAF will enter the inbound corridor (a line extending from Jesup to IPA) from either side at 1000 ft., and normal cruise speed. Proceed inbound to Flemington monitoring 121.7 or 234.4 for

runway in use, wind direction and velocity and altimeter. All aircraft will report over Flemington on 127.35 or 247.0 if advised to continue, ~~then proceed to key 1 (sewage disposal bed)~~ and enter either a downwind or base leg (depending on active runway). Procedures for students entering closed traffic when it is already in progress will be to make a standard traffic entry by way of the inbound corridor and Flemington; followed by a full-stop landing on the inside runway; then taxi back for take off on the outside runway into the closed traffic in progress. Tower will normally send aircraft in closed traffic around, so as to minimize ground time of aircraft entering by this means. When conditions permit, the controller (at his discretion) may send closed traffic around so as to land the entering aircraft on the outside runway and thereby avoid the taxi back. Transit aircraft will normally enter the landing pattern on downwind leg or as instructed by the tower.

K24 IFR Procedures

A. Approach procedures - All IFR approaches are controlled by Savannah approach control until visual contact is established. There are three published instrument approaches for LAAF. Two ADF and one VOR. For details see enclosed approach charts.

B. Departure procedures

1. Departure routes or headings are assigned by Savannah departure control on an individual basis.

K25 Coordination Procedures

A. IFR arrival - Advise Savannah approach control when aircraft has landed or when landing is assured. Also advise them immediately of a missed approach.

B. IFR Departures - When aircraft begins taxi for take off, contact Savannah Departure Control and request that they stand by to copy IFR clearance. Then dial Jacksonville ARTCC and request ATC clearance. When aircraft is ready for take off, contact Savannah Departure Control for release and climb out instructions. Give Savannah Departure Control and Jacksonville ARTCC the off time

C. Special VFR - Minimums - Fixed wing - Ceiling ⁷⁰⁰~~800~~ Ft. Vis. 1 mi.
Helicopters - ceiling 500 Ft. Vis. 1 mi. ~~Coordinate with Savannah Approach Control for release of special VFR routes.~~