U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

ORDER

CHS 7110.65G

Effective Date:
January 5, 2015

SUBJ: STANDARD OPERATING PROCEDURE

1. **PURPOSE.** This order provides direction and guidance for air traffic control procedures and services for the Charleston Air Traffic Control Tower and the Charleston Terminal Area. Controllers are required to be familiar with the provisions of this handbook that pertain to their operational responsibilities and to exercise their best judgment if they encounter situations not covered by it.

2. **DISTRIBUTION.** This Order is distributed to the appropriate facility binders.

3. **CANCELLATION.** This Order cancels and supersedes the existing CHS 7110.65F, Standard Operating Procedure.

4. **PROCEDURES.** The procedures follow in chapter and paragraph format.

///ORIGINAL/Signature on file///

Stephanie Faison
Air Traffic Manager
Charleston ATC Tower

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CHAPTER 1: GENERAL

1. PURPOSE

a. This order is supplemental to FAAO 7110.65 and FAAO 7210.3 and prescribes procedures and responsibilities for the operation and administration of Charleston ATCT (CHS) and the safe and efficient control of air traffic within the Charleston, South Carolina Approach Control Area of Jurisdiction. Controllers are required to be familiar with the provisions of this order and to exercise their best judgment if they encounter situations not covered in this order, National and Regional Directives, Letters of Agreement, or other FAA/DOT documents. When a conflict arises between provisions of this order and those in other agency directives, personnel shall request clarification from the OSIC/CIC or the facility manager. Any changes to this Order will be placed in the R&I binder and/or briefed to controllers.

2. USE OF R&I, GENERAL INFORMATION BINDERS AND BULLETIN BOARDS

a. Material placed in any read binder or on any FAA bulletin board shall be approved by the ATM or FLMIC.

b. Employees should only write comments on material in the R&I binder or on the FAA bulletin board when solicited.

c. Assigned operating initials are to be placed in the proper box of the R&I stamp/MBI coversheet to indicate that the material has been read.

d. R&I Binder Section 1 contains material that the specialist should know before assuming responsibility for any control position.

e. R&I Binder "ATO Briefing" contains material that is for information only and is not required reading.

f. R&I Binder "Pending" contains material that addresses coming procedure changes and is not required reading.

3. TERMINAL TEAM CONCEPT AND INTENT

a. There are no absolute divisions of responsibilities regarding position operations. The tasks to be completed remain the same whether one, two, or three people are working positions within a facility/sector. The team, as a whole, has responsibility for the safe and efficient operation of that facility/sector.

b. The intent of the team concept is not to hold the team accountable for the action of individual members in the event of an operational error/deviation.

c. The following terms will be used in terminal facilities for the purposes of standardization

(1) Facility/Sector. The area of control responsibility (delegated airspace) of the radar team, and the team as a whole

(2) Radar Position. That position which is in direct communication with the aircraft and which uses Radar information as the primary means of separation.

(3) Radar Associate Position (WHO/EHO). That position commonly referred to as "Handoff Controller" or "Radar Data Controller." In intrafacility communication this position must be referred to as "Data," or "East/West Data"

(4) Radar Coordinator Position (CI). That position commonly referred to as "Coordinator," or "Overhead."

(5) Radar Flight Data (DI). That position commonly referred to as "Flight Data."

(6) Tower Flight Data (FD). That position commonly referred to as "Flight Data."

(7) Local Control (LC). That position commonly referred to as "Local" or "Tower."

(8) Ground Control (GC). That position commonly referred to as "Ground"

4. MIDNIGHT OPERATIONS

a. The following procedures apply between the hours of 0000(L) and 0500(L).

(1) When single person midnight operations are in effect, including during meals or breaks, coordination must be accomplished with an adjacent facility before the operational person can leave the operational quarters for physiological breaks.

(2) All coordination must be accomplished in accordance with JO 7110.65, appropriate LOAs, and JO 7210.3.

5. HANDSETS

a. Headsets will normally be used on operational positions between 9 am and 7pm daily.

6. ARTS AND APPROVED LOCAL ABBREVIATIONS

a. Data blocks may be used to coordinate information between intrafacility positions using the following procedures.

(1) Operation of the ARTS must be in accordance with the following:

(a) Controllers must not inhibit any fields of **ANY** facility data block. Other inhibit/select switches may be inhibited for short periods of time when necessary due to display clutter.

(b) Controllers must keep the altitude information in the data block current at all times for aircraft without Mode C reporting capability. Aircraft climbing should be designated with a C## and aircraft descending should be designated with a D##. The ## should be last reported altitude in hundreds of feet. When a non-Mode C aircraft is allowed to descend to the airport, the controller must enter "000" in the altitude field of the data block.

(2) A "T" position symbol indicates a full stop at CHS. Data blocks must be modified prior to aircraft reaching a 10 mile final.

(3) These ARTS scratch pad entries must be used as appropriate when clearing an aircraft for an instrument approach other than one advertised on the current ATIS or when a VFR practice approach is being conducted. ## indicates the runway.

Approach	Entry
ILS	I## or ILS
Localizer	L## or "LOC
VOR	V##, VR or VOR
TACAN	T## or TAC
RNAV Z (RNP)	P## or RNP
RNAV Y (GPS)	G## or GPS
CIRCLING	C##
PRACTICE APP 3/21	R##
ODO ARRIVAL	R##

(4) The following scratch pad entries must be used as appropriate for aircraft landing at the helipads within CHS airspace.

Helipad	Entry
USC	MUSC
USN	Navy Base/Shipyard
TRD	Trident
CMC	Colleton Co. Helipad (RBW)
RSF	Roper/St. Francis Helipad (MKS)

(5) "△△△" - Indicates Tower has approved an aircraft to enter/transit Tower airspace.

(6) "RVR" indicates aircraft is on a River Patrol and might reverse course.

(7) "TWR" indicates aircraft is Tower's control but not a full stop at CHS.

(8) Destination airport 3 letter identifiers or airways may be shown in the scratchpad.

(9) The number of aircraft in a flight arriving at CHS must be indicated in the "H scratchpad" or verbally coordinated. *Example: A flight of two F-18s would be shown as 2F18.*

(10) The following special designators must be used. When situations require the use of more than one special designator, the scratch pad or verbal coordination must be used to coordinate information.

Activity	Designator
Approach to runway 21 or 3 (when more than one runway is active).	S
Circling approach	C
Overhead approach	O
Aircraft executing practice approaches	A
Landing at LRO	Z
Landing at JZI	X
Landing at MKS	K
Landing at RBW	W
Landing at 6J2	G
Landing at 5J5	Y
Landing at DYB	D

(11) The following abbreviations are authorized for local ARTS and strip marking use:

CALL SIGN	ABBREVIATION
LIFTER	LF
MOOSE	MS
GRITS	GT
PALM	PM
TINCAN	TCN

(12) The ARTS System Area must not be used to communicate the ATIS code or runway identification.

7. FREQUENCY INFORMATION

a. The following frequencies must be monitored at all times and used as needed:

POSITION	VHF	UHF
Clearance Delivery	127.325	291.65
Ground Control	121.9	348.6
Local Control	126.0	239.0
West Radar	120.7, 118.5, 119.3	306.925, 284.0, 317.45
East Radar	135.8	379.925
West Radar Handoff	119.85 (JZI Remote)	n/a
Guard (Emergency)	121.5	243.0

8. MSAW

a. There are no areas in the Charleston Terminal Area where MSAW is inhibited. At airports with published instrument approach procedures, MSAW is desensitized along the final approach course so that an aircraft making a stabilized descent will not trigger an alarm.

9. RUNWAY UTILIZATION

a. The normal runway configurations at CHS are SOUTH [RY15 and RY21 (15/21)] or NORTH [RY33 and RY3 (33/3)]. Occasionally, operational factors (like weather) may require a shift to RY15 and RY3 (15/3) or RY33 and RY21 (33/21). These configurations must be coordinated and agreed upon by TCIC and RCIC and logged on FAA Form 7230-4. During these configurations the following procedures must be followed unless otherwise coordinated:

(1) Automatic releases are cancelled;

(2) Tower retains the airspace associated with the long runway (15/33);

(3) All arrivals must be assigned RY15/33; All departures must be assigned RY21/3

(4) Departures must be runway heading and 2000'.

b. The Tower OS/CIC, with input from the TRACON OS/CIC, shall determine the departure/landing direction. Departure/landing direction shall determine "active runways." Opposite direction operations must be conducted in accordance with the provisions in this document.

10. CONTROL JURISDICTION OF MOVEMENT/NON-MOVEMENT AREAS

a. Responsibilities of the Charleston Air Traffic Control Tower

(1) Tower is responsible for providing air traffic control services on all runways and taxiways east of Runways 15/33 and 3/21, except Taxiways M and L. Any information furnished for operations in non-movement areas is advisory only and does not imply control responsibility.

b. Responsibilities of the 437 AW/OSA (Airfield Management)

(1) Non-movement areas:

(a) The Joint Base (JB) Charleston ramp areas and taxiways leading up to the runway hold short lines. This includes all of Taxiway K, Taxiways D and E from the ramp to the Runway 15/33 hold short line, and Taxiways D, H, and F from the ramp to the Runway 3/21 hold short line.

(b) The JB Charleston Aero Club ramp and taxiway L up to the Runway 33 Hold Short Line.

(2) Movement areas:

(a) Runway 15/33, Runway 3/21, Taxiways C, D, E, H, J, and the portion of F west of Runway 15/33.

c. **Responsibilities of the Charleston County Aviation Authority (CCAA)**

(1) Non-movement areas:

(a) The Fixed Base Operators' designated ramp areas up to but not including taxiways G, G1, and G2.

(b) The Charleston International Airport Terminal Ramp up to but not including taxiway B, taxiway M, and from the terminal ramp to the movement line on taxiway A. This area includes transitioning to and from the U.S. Customs gate, RON Apron, and the bulk cargo ramp.

(2) Movement areas:

(a) Taxiways A, A1, G, G1, G2, and the portion of F, east of Runway 15/33.

11. EMERGENCY PROCEDURES

a. Check the Primary Crash Alarm System (PCAS) daily at 0900L to ensure satisfactory operation. Report all deficiencies to AM (Airfield Management) and the OS/CIC. United States Air Force (USAF) Medical will not respond on weekends/holidays.

b. Medical Emergencies.

(1) Tower must activate the PCAS and notify the USAF authorities of all medical emergencies on the airport. Notification shall contain, at a minimum, the following information:

(a) Aircraft/Vehicle Identification and Type.

(b) Nature of Medical Emergency, if known.

(c) Location on the airport.

(d) Patient information, if available.

(2) Normal Operations will continue unless otherwise coordinated.

c. All other Emergencies.

(1) Activate the PCAS and notify the USAF authorities of all emergencies intending to land at CHS or within CHS Approach jurisdiction as soon as practical. AM shall notify the CCAA of any emergencies involving civil aircraft via the Secondary Crash Net (SCN). Notification shall contain, at a minimum, the following information:

(a) Aircraft Identification and Type.

(b) Nature of Emergency.

(c) Pilot's desires.

(2) Tower will advise the Incident commander on Ground Control frequency of the following when needed and the information is obtained from the pilot:

(a) Fuel remaining in time. (Provide USAF "fuel remaining in pounds" if available due to the wide variety of civil aircraft specifications that commonly use CHS).

(b) Landing Runway or Location.

(c) Estimated Time of Arrival.

(d) Current wind.

(e) Number of people on board. (Provide USAF number of people forward and aft, if available).

(f) Emergency equipment on board, if applicable.

(g) Hazardous material or weapons on board.

(3) Following aircraft arrival, runway operations will be suspended until AM has determined the runway is safe for operations.

d. Actual crash incidents on the airfield including any time an aircraft leaves the runway or taxiway environment.

(1) Airfield operations will be terminated until coordination is made through the Incident Commander and AM.

e. When an emergency occurs on the airport proper, control other air and ground traffic to avoid conflicts in the area where the emergency is being handled. This also applies when routes within the airport proper are required for movement of local emergency equipment going to or from an emergency which occurs outside the airport proper.

f. Workload permitting, monitor the progress of emergency vehicles responding to a situation. If necessary, provide available information to assist responders in finding the accident/incident scene.

12. OPPOSITE DIRECTION OPERATIONS

a. Opposite Direction Operations (ODO) are inherently dangerous and require extra attention. They should not be used for pilot convenience.

b. The provisions of this paragraph are applicable to aircraft receiving radar separation services but apply only when there are at least two (2) aircraft involved (an arrival and a departure, or an arrival and an arrival) and those two aircraft are in a proximity in which action must be taken to ensure separation.

c. All coordination should normally be accomplished by WR/ER and LC. WR/ER is responsible for informing the OS/RCIC of planned opposite direction operations. LC is responsible for informing the TCIC of planned opposite direction operations. The RCIC/OS and TCIC must ensure all coordination is on a recorded line.

d. Traffic advisories must be issued to all aircraft involved in an opposite direction operation.

Examples: "OPPOSITE DIRECTION TRAFFIC (distance) MILE FINAL, (type aircraft)."

"OPPOSITE DIRECTION TRAFFIC DEPARTING RUNWAY (number), (type aircraft)."

e. LC and WR/ER must each use at least one of the following as a memory aid until the operation is complete:

(1) Write "ODO" in block 9 of the applicable flight progress strip

(2) Highlight the aircraft call sign in the maintained written record of arrivals and departures

(3) Use the ARTS to indicate "ODO" or runway to be used in the aircraft scratch pad

(4) Use the ARTS to indicate a 10 mile area ring centered on the airport and/or stationary alphanumeric message

f. The provisions of JO 7110.65, Paragraph 7-2-1, Visual Separation, cannot be applied when conducting opposite direction operations.

g. When conducting opposite direction operations and utilizing the cutoff points established in this paragraph, LC and WR/ER must consider aircraft performance, type of approach, operational position configuration, runway configuration, and weather conditions.

NOTE - It is incumbent to remember and apply all other provisions of JO 7110.65 including, but not limited to, providing IFR aircraft turn on at or below glide slope intercept altitude, complying with approach gate requirements, and placing the aircraft in a position to execute a stable approach.

h. IFR Opposite Direction Departures:

(1) LC is responsible for coordinating opposite direction departures with WR/ER. Coordination must be on a recorded line, state "opposite direction," and include call sign, type, departure runway, and initial heading or route.

Example: "APREQ, OPPOSITE DIRECTION DEPARTURE, RUNWAY (number), (aircraft type), (aircraft call sign), RUNWAY HEADING.

(2) Opposite direction departures will be assigned runway heading and an initial altitude of 2000 feet unless otherwise coordinated with WR/ER.

(3) Until the departure is airborne and on a course (or at an altitude) to avoid conflict, WR/ER must ensure that arrivals remain at least:

(a) 10 flying miles from the runway; or

(b) five (5) flying miles from the runway if vertical separation is being applied.

i. IFR Opposite Direction Arrivals:

(1) WR/ER is responsible for coordinating opposite direction arrivals with LC. Coordination must be on a recorded line, state "opposite direction," and include call sign, type, current location and arrival runway.

Example: "APREQ, OPPOSITE DIRECTION ARRIVAL, RUNWAY (number), (aircraft type), (location), (aircraft call sign).

(2) Automatic departures are cancelled once an opposite direction arrival is within 15 flying miles of the airport. They shall be resumed after the arrival has landed.

(3) During operations between arrivals to opposite ends of the same runway, until the first arrival crosses the landing threshold, WR/ER must ensure that the second arrival remains at least:

(a) 10 flying miles from the runway; or

(b) five (5) flying miles from the runway if vertical separation is being applied.

j. VFR Opposite Direction Operations:
   (1) Ensure VFR aircraft are turned to avoid conflict with opposing IFR/VFR traffic.
      (a) An aircraft established in the traffic pattern shall not be allowed to turn base leg until an opposite direction departure is airborne and issued a turn to avoid conflict or an opposite direction arrival has crossed the runway threshold.

13. OVERHEAD MANEUVERS
   a. The Overhead Maneuver
      (1) In addition to the provisions of the 7110.65, radar must:
         (a) Vector or clear aircraft to a 3-5 mile straight in final (Initial).
            NOTE: The IFR portion of the flight plan terminates at the Initial so NO approach clearance is required.
         (b) Ensure all conflicts are resolved and issue a frequency change in a timely manner.
         (c) Coordinate all information with Tower.
         (d) Issue pertinent traffic information.
      (2) In addition to the provisions of the 7110.65, Tower must:
         (a) Assign appropriate break point as required (i.e., Mid-field, Upwind Numbers) and direction of break.
         (b) Issue pertinent traffic information.

14. UNUSUAL SITUATIONS
   a. Specialists must notify the OS/CIC of any unusual occurrence that is noted, including, but not limited to:
      (1) Events that generate a Mandatory Occurrence Report (MOR)
      (2) Inoperative or malfunctioning equipment
   b. Unusual situations must be handled using good judgment and the procedures contained in National directives, LOAs, and this Order.
   c. Unusual situations must be documented on FAA Form 7230-4. Certain situations may require specific MOR documentation.
   NOTE: Some suspected LOSS events may be reported through ATSAP, to the OS/CIC, or both.
   d. Hijack/Bomb Threat
      (1) Civilian Aircraft. In the event of a hijack or bomb threat onboard a civilian aircraft, the aircraft shall be instructed to taxi to and park on Taxiway Charlie between the approach end of Runway 3 and Taxiway Bravo unless the pilot cannot comply or an alternate site is designated by the Incident Commander.
      (2) Military Aircraft. In the event of a hijack or bomb threat onboard a military aircraft, the aircraft shall be instructed to taxi to and park at Spot 88/89 (the northern most parking area on the military ramp) unless the pilot cannot comply or an alternate site is designated by the Incident Commander.
   e. Hot Brakes. When an aircrew reports Hot Brakes, the Tower must:
      (1) Direct the aircraft to the first available taxiway off the runway and, if possible, to a location that will not interfere with other aircraft operations.
      (2) Activate the PCAS and pass the required information.
   f. Hot Gun/Hung Ordnance. When an aircrew reports Hot Gun/Hung Ordnance, the Tower must:
      (1) Activate the PCAS and pass the required information.

(2) Direct the aircraft to park on Taxiway H between Taxiway A and Runway 3/21.

(3) Advise the pilot to park with the nose of the aircraft pointing towards the approach end of Runway 3.

g. Hydrazine. F-16's carry an external power unit (EPU) for use in the event of complete power or hydraulics failure. Hydrazine fuels the EPU and is extremely caustic. In the event of a F-16 inbound emergency, the Tower must:

(1) Activate the PCAS and pass the required information.

(2) Obtain the EPU status from the pilot and pass the information to the Incident Commander. (i.e., "Say EPU status")

(3) Direct the aircraft to:

    (a) Taxiway D Hammerhead if landing Runway 33.

    (b) Taxiway L if landing Runway 15.

    (c) Secondary spot if landing Runway 15 will be on Taxiway H between A and C.

(4) Advise pilot to park into the wind.

h. Barrier Engagements. Operate the arresting system in accordance with JO 7110.65 and the CHS/437 AW/CCAA Letter of Agreement (LOA). In the event of an actual barrier engagement, immediately activate the PCAS and treat the situation as an emergency.

i. Fuel Jettison, Jettison of External Stores and Controlled Bailout. Charleston Approach will direct aircraft requesting these operations to:

(1) Fuel Jettison: CHS 180/21 and maintain 10,000.

(2) External Stores Jettison: CHS 180/21 and maintain 2,000.

(3) Controlled Bailout: CHS 149/13 and maintain 3,000.

j. Hurricane/Severe Weather

(1) The airfield will close when 628 CES/CEF AARF status can no longer adequately support aircraft emergency response.

(2) AM and CCAA will coordinate with Tower for evacuation of remaining Tower personnel on a case by case basis.

15. PRESIDENTIAL AIRCRAFT MOVEMENT

a. Guidance regarding the movement of Presidential aircraft may be found in JO 7110.65. Additional site-specific guidance regarding Presidential aircraft movement may be provided by Secret Service or USAF personnel. FLM/CICs must be present at each sector/position providing ATC service to the President, Vice President, and EXEC1F aircraft from the flight's entry in the facility's airspace until the flight exits the facility's airspace and must aurally and visually monitor these flights to ensure that separation, control, and coordination are accomplished.

16. BIRD WATCH CONDITION/BASH

a. Tower must promptly notify AM when bird or other activity around the airfield requires dispersal action or change of Bird Watch Condition (BWC).

(1) Bird Watch Condition LOW is defined as no significant threat of bird activity in the local pattern. Flying operations are not restricted.

(2) Bird Watch Condition MODERATE is defined as concentrations of 10 to 15 large birds (egrets, waterfowl, raptors, gulls, etc.) or 15 to 30 small birds (terns, swallows, etc.) observed in locations that represent an increased potential for strikes.

(3) Bird Watch Condition SEVERE is defined as heavy concentrations of birds (more than 15 large birds or 30 small birds) on or above the runway, taxiways, infield areas and arrival/departure routes or in areas that represent an imminent hazard to safe flying operations.

b. Direct AM or BASH contractor personnel to location of bird/animal activity.

c. Add the phrase "Military Bird Watch Condition (Moderate or Severe)" to the ATIS broadcasts, along with other bird information IAW JO 7110.65.

17. AIRFIELD RESTRICTIONS

a. Without exception, prohibit the following operations to a closed runway:

(1) Any maneuver to the closed runway that allows an aircraft to overfly the runway environment.

(2) Instrument approach circling procedures are authorized ONLY if the circling procedure begins prior to the closed runway.

b. Aircraft larger than a B737 are NOT allowed to make 180 degree turns on any runway, except during emergency situations.

c. Tower must suspend airfield operations and inform AM and OS/RCIC in the event of an unsafe situation/occurrence on or off the airfield that would be a hazard to flight safety.

d. Tower shall promptly notify AM when braking condition reports change to "fair, poor, or nil" or have improved to "good."

e. Excluding ALL C-17's, Tower must advise all aircraft going to the military ramp to hold short of Taxiway D and wait for a "Follow Me" vehicle to parking.

18. FOREIGN OBJECTS DAMAGE (FOD)

a. FOD is any material (rock, metal, etc) that could damage an aircraft tire, engine or structure. When FOD is reported on runways or taxiways, these passageways must be closed until the FOD is removed and the area is inspected and reopened by AM or CCAA, as appropriate. When notified of FOD on a runway or taxiway, suspend operations on the affected surface area(s).

b. Depending on jurisdiction, notify AM or CCAA of the FOD location.

c. If needed, update ATIS.

19. WEATHER REPORTING

a. workload permitting, forward the following PIREPs to the AM via the Base Ops shout line:

(1) Moderate or greater turbulence.

(2) Moderate or greater icing.

(3) LLWS within 10 miles of KCHS.

(4) All other URGENT PIREPs.

20. NATIONAL SECURITY AND LAW ENFORCEMENT PROCEDURES

a. Man-Portable Air Defense Systems (MANPADS)

(1) Do not withhold landing clearance. To the extent possible, issue information on MANPADS threats, confirmed attacks, or post–event activities in time for it to be useful to the pilot. The pilot or parent company will determine the pilot's actions.

(2) MANPADS information will be disseminated via the ATIS and/or controller–to–pilot transmissions.

(3) Report MANPADS threat/attack/post–event activity until notified otherwise by FAA national headquarters.

21. WSA/MBA ALERTS

a. Following are some examples of WSP alerts and the correct phraseology for issuing an alert to an aircraft. Use Figure 19-1 is an example of how the alerts would appear on the RDT.

Figure 11-1 RDT
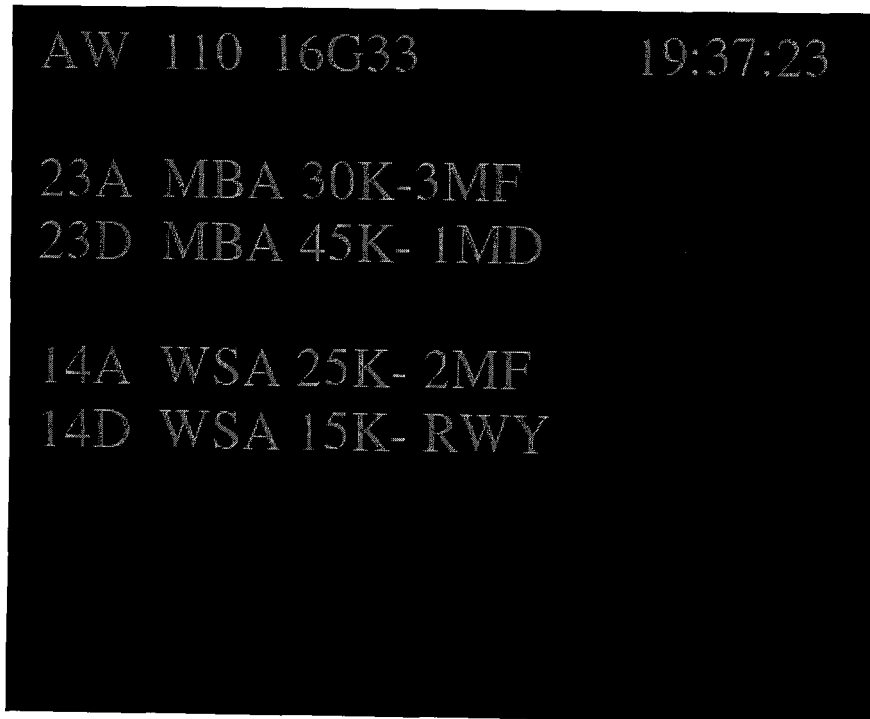
b. Phraseology examples:
(1) 23A MBA 30K- 3MF
"RUNWAY TWO THREE ARRIVAL MICROBURST ALERT, THREE ZERO KNOT LOSS, THREE MILE FINAL"
(2) 23D MBA 45K- 1MD
"RUNWAY TWO THREE DEPARTURE MICROBURST ALERT, FOUR FIVE KNOT LOSS, ONE MILE DEPARTURE"
(3) 14A WSA 25K- 2MF
"RUNWAY ONE FOUR ARRIVAL WIND SHEAR ALERT, TWO FIVE KNOT LOSS, TWO MILE FINAL"
(4) 14D WSA 15K- RWY
"RUNWAY ONE FOUR DEPARTURE WIND SHEAR ALERT, ONE FIVE KNOT LOSS, ON THE RUNWAY"

22. CONTROL TRANSFER OF VISUALLY SEPARATED AIRCRAFT
a. When separation has decreased or is likely to decrease to less than the applicable minima, and the pilot is maintaining visual separation, the operation must be verbally coordinated with the receiving position/sector/facility prior to communication transfer.

23. COMBINING POSTIONS
a. Combine facility positions as follows:
    (1) Tower positions.
        (a) Flight Data (FD) to Clearance Delivery (CD).
        (b) CD to Ground Control (GC).
        (c) GC to Local Control (LC).
        (d) Cab Coordinator (CC) to Tower Controller-in-Charge (TCIC).
        (e) Tower Controller-in-Charge (TCIC) to Tower OS (TOS).
    (2) TRACON positions.
        (a) East Radar (ER) to West Radar (WR).
        (b) Radar Coordinator (CI) to WR.
        (c) West Radar Handoff (WHO) to WR.
        (d) East Radar Handoff (EHO) to ER.
        (e) West Radar Flight Data (WDI) to WHO.
        (f) East Radar Flight Data (EDI) to WDI.
        (g) Radar Controller-in-Charge (RCIC) to Front Line Manager/Controller-in-Charge (OS/CIC).
        (h) OS/CIC to Front Line Manager (OS).
b. The following positions are regularly combined during operational hours:
    (1) Tower
        (a) FD, CD, and GC
        (b) CC, TCIC, and OS/CIC
    (2) TRACON
        (a) CI and WR
        (b) EHO and WHO
        (c) WDI, EDI, and WHO
        (d) WR and ER

24. PRE-DUTY FAMILIARIZATION
a. All operational and CIC positions require pre-duty familiarization.
b. Familiarization includes:
    (1) Check with RCIC/OS for assignment (i.e., Briefing items, eLMS, etc.)
    (2) R&I Binder
    (3) IDS-4 SIA
    (4) NOTAMS

25. TRANSFER OF POSITION RESPONSIBLILTY
a. The transfer of position responsibility must be accomplished in accordance with the **"Standard Operating Practice (SOP) for the Transfer of Position Responsibility"** and this

directive each time operational responsibility for a position is transferred from one specialist to another. Special attention should be paid to ensuring the information relayed is accurate.

(1) Ensure the entire briefing is recorded and references the checklist. (I.E., "1 through 10.")

(2) After the briefing is completed and the relieving controller is ready to assume full responsibility for the position, he or she must state, *"I have the position,* (initials)."

(3) Any control instruction issued during the briefing must be considered part of the briefing.

26. POSITION RELIEF BRIEFING CHECKLIST

a. This checklist must be used and referenced when conducting a position relief briefing. The controller being relieved must **only** verbally brief the relieving specialist on: the status of items not listed on the Status Information Area(s) or any items of special interest calling for verbal explanation or additional discussion; runway configuration/status; status of the Low Country Shelf; traffic; and communication status of each aircraft.

(1) SIA (Status Information Areas) (IDS)

(2) Equipment: NAVAIDS, RADAR, Radios, AWOS, etc.

(3) Airport Conditions/Status

(4) Airport Activities; e.g. snow removal, vehicles on runway, etc.

(5) Altimeter/Trends

(6) Weather/Trends

(7) Flow Control

(8) Special Activities; e.g. MOAS in use, flight checks, new procedures, etc.

(9) Special Instructions/Restrictions; e.g. position training, nonstandard staffing/configuration, etc.

(10) Training in progress

(11) **Verbally State Runway in Use and Status**; unavailable, closed, occupied

(12) Pertinent Operational NOTAMS (unless previously covered)

(13) Traffic (each item below must be reviewed by the specialist being relieved, but only applicable items must be verbally addressed):

(a) Special Activity Aircraft

(b) Point out Aircraft

(c) Holding Aircraft

(d) Primary targets with no associated alphanumeric

(e) Aircraft handed off but still in CHS airspace

(f) Aircraft released but not yet airborne

(g) CENRAP Operations

(h) VFR advisory aircraft

(i) Aircraft standing by for service

(j) Coordination agreements with other positions/facilities

(k) Special problems, requests, or instructions

*Note: The controller being relieved **must** monitor the position for two minutes after being relieved.*

Example: "You have 1-12, Runway 3, Runway 33 is Closed, parachute activities around RBW, not currently airborne, we have the shelf, traffic (Explain), and we are talking to everyone except N5BW who is talking to Tower."

27. CRITICALLY DEPENDENT POSITIONS

a. The following positions are deemed critically dependent to each other:

(1) Local Control and Ground Control

(2) West Radar and East Radar

(3) West Radar Handoff and West Radar

(4) East Radar Handoff and East Radar

b. Critically dependent positions must not be simultaneously relieved. After the first critically dependent position has completed the relief briefing and two minute overlap, the second critically dependent position may begin the relief briefing process.

28. OPERATIONAL AREAS AND DISTRACTIONS

a. An operational area is the immediate area in which live air traffic operations are being conducted. Cell phone usage, Non-ATC related material and non-approved electronic devices should be removed from operational areas. If aggressive/loud conversations or detailed/lengthy food orders become distracting, they should be removed or deferred. All distracting or potentially distracting activities can be performed outside the immediate area in which live air traffic operations are being conducted.

CHAPTER 2: EQUIPMENT AND NAVAID MONITORING

1. **GENERAL**
   a. The equipment listed in this chapter is located throughout the operational areas. Some items are located in both the Tower and TRACON. The following information includes a brief overview of each item and general operating instructions for usage.

2. **ASR 9 TERMINAL DIGITAL RADAR SYSTEM AND DISPLAY SETTINGS**
   a. Adjust the ASR 9 Radar Display presentation IAW this order and the JO 7110.65.
      (1) Turn all controls counterclockwise or off.
      (2) Adjust sweep intensity.
      (3) Adjust video intensity.
      (4) Adjust beacon intensity.
      (5) Adjust alphanumeric size and intensity.
      (6) Adjust map intensity.
      (7) Select and adjust range mark settings/intensity.
      (8) Center map to display area of jurisdiction and adjacent airspace.
      (9) Check display for alignment accuracy, using the following:
         (a) For range and azimuth from the ASR 9 antenna:
            1) Permanent Echo 1(PE1) - 130/7.5 NM
            2) Permanent Echo 2(PE2) - 112/11 NM
            3) Permanent Echo 3(PE3) - 120/11.5 NM
         (b) For map alignment:
            1) The above listed PEs to their corresponding obstruction marks.
            2) MTI1 - 025/1.9 NM
            3) MTI2 - 360/2.5 NM
   b. The following controls are set and may be adjusted for use.
      (1) The MTI/NORM CROSSOVER should be set to the maximum clockwise position.
      (2) The MTI switch should be set in the GATE position.
      (3) SPARE VIDEO is off and only needed if the NON-RADAR/ATCRBI BEACON DECODER is in use.
      (4) WEATHER is off and only used to adjust presentation intensity when the ASR 9 weather processing is in use.
   c. The ASR 9 Display normally uses WSP weather data. Adjust the ASR 9 VIDEO CONTROL PANEL to display weather levels as follows:
      (1) Ensure that 6-Level weather is selected.
         (a) When a problem is detected in the 6-Level circuit, the ASR 9 will switch to the 2-Level back-up and the SUM will be lit and be the only option available.
         (b) During 2 level operations the following levels are presented:
            1) Level 2 and 3 are displayed as LOW.
            2) Level 4, 5, and 6 are displayed as HIGH.
      (2) Select discrete (DISC) or summation (SUM). DISC is the normal operating position.
      (3) When weather is present, the 1, 2, 3, 4, 5, 6 selector switches will be lit according to the level of weather available.

(4) Two (2) selector switches must be depressed to display any weather. The lowest level selected will be displayed with a lower intensity return and the highest level selected will be displayed with a brighter return.

(a) Intensity is controlled with the WEATHER knob on the ASR 9 RAD.

3. PORTABLE EMERGENCY TRANSCEIVERS (PET-2000)

a. Two PET-2000s are available in the tower cab and TRACON.

(1) The PET-2000 is a half-duplex radio transceiver, i.e., it cannot receive while transmitting. The radio is fully microprocessor-controlled from the instructions programmed at the front panel. The frequency is tuned either by selecting one of the ten preset channels or by manually setting up the frequency on the LCD display, using the keypad. In addition to battery power, a PSBC allows the unit to operate using an external AC or DC power source. When utilizing the PSBC box, never place it on top of the unit.

b. Operation.

(1) Turn the unit on using the VOLUME CONTROL switch.

(2) Adjust the VOLUME CONTROL for a comfortable speaker audio level.

(3) Adjust the SQUELCH CONTROL to a point where background noise is cut off.

(4) To select a preset channel, press "0" followed by the preset channel number. The preset channels are numbered 0 through 9.

(5) To manually select a frequency, select a preset channel and enter the desired frequency. Pressing the STO key will, after manually changing the frequency, assign that frequency to that channel.

c. If battery operation is required, the SHORTING PLUG must be inserted on the back of the unit. If this plug is not inserted, the unit will not operate. When battery operation is no longer required, plug the PSBC back into the unit and into an AC or DC power source.

4. ASR 9 CONTROL PANEL

a. There are two ASR 9 Control Panels in the operational areas, one mounted in the console on the south side of the Tower Cab and one mounted above the OS/CIC desk in the TRACON.

b. Operate the ASR 9 Control Panel in the following manner:

(1) TAKE/RELEASE CONTROL.

(a) Normal operation is OS/CIC Panel in control. The associated "TAKE CONTROL" light will be white and the "RELEASE CONTROL" light will not be lit.

(b) To release control to another panel, press "RELEASE CONTROL" until the button is lit. The other party will have to select "TAKE CONTROL" on their panel.

(2) Changing Radar channels:

(a) The current channel (A or B) will have the "ONLINE" and "H.V.ON" indicators lit. The standby channel will have the "STANDBY" and "H.V.OFF" indicators lit.

(b) To change the channel:

1) Press the "H.V.ON/OFF" button on the current channel.

2) Press the "ONLINE/STANDBY" button on the standby channel.

3) Press the "H.V.ON/OFF" button on the standby channel.

(3) Antenna Control

(a) Do not turn off the Antenna Rotation without prior coordination with Tech Ops.

(b) Polarization should be in "AUTO" for normal operations.

(c) Select LINEAR/CIRCULAR as required.

5. ILS RY 15/33 CONTROL PANEL

a. The ILS control panel is located in the Tower cab, to the right of the LC position.

(1) This panel monitors the status of the ILS systems. The panel will only monitor one runway system at a time.

(2) To change from one ILS system to the other, press the "RUNWAY" selector button twice. The digital display will change to "-E-" and then to either "15" or "33". After the runway selection is made, an aural alarm will sound identifying the change. Acknowledge all alarms by pressing the "SILENCE" button. If the alarm is activated for any reason other than the runway change, notify the OS/CIC.

6. ASHLY LOM MONITOR

a. The ASHLY LOM Monitor is mounted in the console above the ILS Control Panel. This equipment is the "over-the-air" monitor for the NDB portion of the ASHLY LOM only. Any alarms must be reported to the OS/CIC.

7. CATEGORY II INSTRUMENT LANDING SYSTEM

a. The following component requirements must be met prior to CAT II operations:

(1) Either the main or standby ILS transmitters must be operational.

    (a) A loss of either transmitter will not preclude continued use of the ILS, but Tech Ops must be notified of the failure.

(2) The ILS Far Field Monitor (FFM) must be operational.

(3) Runway Visual Range (RVR) equipment requirements:

    (a) Touchdown RVR is required.

    (b) Midpoint is not required unless Rollout is inoperative and RVR is below 1600'.

    (c) Rollout is not required unless Midpoint is inoperative and RVR is below 1600'.

(4) Marker beacon requirements:

    (a) Outer Marker (OM) is not required if the FAF can be identified by another method.

    (b) Middle Marker (MM) is not required.

    (c) Inner Marker (IM) is not required. If the IM is inoperative, it limits the lowest visibility to RVR 1600' unless the aircraft is equipped with a radio altimeter and the Standard Instrument Approach Procedure does not prohibit its use.

(5) Compass locator and distance measuring equipment (DME)

    (a) Not required for CAT II operations, but advise pilot of any outages.

(6) Lighting requirements. All lighting systems related to CAT II operations must be activated when the RVR is less than 2000 feet and/or the reported ceiling is less than 200 feet.

    (a) Runway lighting.

        1) Runway edge lights, touchdown zone lights, and runway centerline lights are required.

            a) If more than 10% of these lighting systems are inoperative, CAT II operations are not authorized.

    (b) Approach lighting:

        1) The approach lighting system (ALS) with sequence flashing lights (SFL) is required for CAT II operations.

2) The OS/CIC must check the ALS monitor on step 5 when the weather is first reported at CAT II minima and every two hours thereafter during CAT II operations.

3) Prior to conducting CAT II operations, power for the RY 15 ALSF2 must be switched to the standby engine generator. Primary commercial power will become the secondary source. A failure of EITHER power source denies CAT II operations unless the lights can be monitored continuously and aircraft can be immediately informed if a failure occurs.

8. AIRPORT LIGHTING

a. The runway 15 and 33 approach lighting systems are maintained by CHS Tech Ops. All other lighting is maintained by the USAF or CCAA. Use of, and settings for, these systems must be IAW JO 7110.65. The controls for these systems and all other lights are located at the LC position.

(1) Runway 15 ALSF2 system.

(a) The approach lighting system has two operating configurations. The ALSF configuration is the full approach system and is required for CAT II ILS operations. The SSALR is the short system (comparable to the MALSR system) and does not use the full capabilities of the ALSF2. SSALR should be used during normal operations and when weather is not a factor.

(b) The sequence flashing lights must be used for CAT II operations and may be used during normal operations.

(c) Alarms and failures:

1) If the "CAUTION" light is observed, this indicates that there are lights inoperable in the system.

2) If the "COMM FAULT" light is observed, this indicates system trouble between the control panel and the lighting building and settings changes may or may not be transmitted.

3) If the "FAILURE" light is observed, this indicates a failure of a portion or all of the ALSF2 system.

4) ALL alarms and failures must be reported to the OS/CIC.

(2) Runway 33 MALSR system.

(a) The "G/G ON" button should always be selected. There is no provision for pilot control of the lighting system.

(b) The control panel for the MALSR does not have a built in monitor. Any outages/malfunctions must be reported to the OS/CIC.

(3) Airport Lighting Monitor.

(a) All runway, taxiway, PAPI, rotating beacon, and runway 3 approach light controls are located on this panel.

(b) The lights may be controlled individually or with the use of the preset macros built in to the system.

(c) The system has the sunrise/sunset table available in the program, but will not automatically turn on the lighting system.

(d) There are two "views" available for the system. The console view lists all of the controls for each portion of the lighting systems. The map view depicts an overhead diagram of the airfield and lights are controlled by clicking on portions of the map.

(e) This system is maintained by the USAF and any failures/outages must be reported to the OS/CIC.

9. TOWER BAK-12H CONTROL PANEL

    a. The BAK-12H Control Panel is used to monitor barrier pit conditions and to control the BAK-12H Arresting System. The following apply:

        (1) The Power Fail Lamp indicates that the power to the barrier equipment has failed.

            (a) In the event of a power outage at the runway, the BAK-12H system will raise and remain in that position until power is restored or USAF personnel disable the system.

        (2) The Comm Fail Lamp indicates that two way communication has failed between the panel and the barrier equipment.

            (a) During a communication failure the barrier up/down lights will only show the last known configuration, **not the actual configuration**.

        (3) The Cable UP/DOWN switch and associated lamps are used to control the barrier system and show the current status. If the system detects an abnormal operation, the lamp will blink and the audible alarm will sound.

        (4) The Control RUNWAY/TOWER switch and associated lamps identify whether the tower or the barrier site has control of the barrier system.

10. WIND INDICATORS

    a. CHS wind information is located in both of the operating areas and available from two types of displays. There are stand alone digital readouts and the WSP monitors. Both displays receive the wind information from the same device located at the CHS RTR site on the airport.

    b. In the event of a wind instrument failure, the wind must be obtained from the ASOS wind contained in the official weather observations and issued as "estimated."

11. DIGITAL ALTIMETER SETTING INDICATOR (DASI)

    a. There are two sources for altimeter information at CHS. The primary source is the ASOS and the secondary is the DASI. Crosscheck the DASI to the ASOS and report any deviations to the OS/CIC and post the difference, or "correction factor", in designated box on the IDS4 SIA page.

    b. The ARTS IIE system automatically updates the altimeter when the feature is functional. The letter "D" will be displayed next to the altimeter in the Systems Area when this feature is operational. Manual entries must be made if the feature is inoperative.

12. FACILITY CLOCKS

    a. Digital facility clocks are located throughout the operational areas and tied into other equipment. The clocks are tied to the direct coded time source. Time checks are not required.

        (1) The following equipment is tied into the direct coded time source:

            (a) WSP

            (b) ARTS IIE

13. ELECTRONIC FLIGHT STRIP TRANSFER SYSTEM (EFSTS)

a. The EFSTS is an electronic means of transferring flight progress strip (FPS) information from one control position to another. This is accomplished with the use of computer generated bar coded FPSs and bar code scanners.

b. There are two scanners and control boxes in the Tower Cab, one at FD/CD and one at LC.

c. A TRACON scanner is located at the WFD position and is used to configure the printers when the radar sectors are split or combined.

14. WEATHER SYSTEM PROCESSOR (WSP)

a. There are two components that comprise the WSP equipment.

   (1) The WSP computers and Geographic Situation Displays (GSD) are located in the Tower Cab and the TRACON.

   (2) The GSD screen consists of a Menu Bar, Product Alert Summary, Map Range Selection Buttons, Precipitation Product Key, Runway Alerts, Mode & State Bar, Product Status panel and Main display.

   (3) A depiction of the CHS airspace, visual alerts and weather phenomena are displayed on the GSD.

   (4) To change runway configurations in the WSP you must:

      (a) Select "RUNWAYS" from the top menu bar.

      (b) Select "CONTROL". The Runway Configuration Login windows will open.

      (c) Enter "airtraffic" in both the username and password boxes.

      (d) Select "SUBMIT". The Runway Configuration Operation window will open.

      (e) Highlight the desired runway configuration and select "RECONFIGURE".

      (f) Observe the change in the "CURRENT CONFIGURATION" box, then select "DISMISS". The Runway Configuration Operation window will close.

      (g) Select "DISMISS" on the Runway Configuration Login window.

   (5) At the controllers' discretion, range settings and map overlays may be displayed or changed. However, the Runway Configuration must be accurate.

   (6) There are three Ribbon Display Terminals (RDT) in the facility. Two in the Tower Cab, one at LC and one at FD/CD, and one in the TRACON at ER.

   (7) The RDT is a display device that reports Airport Winds (AW) and alert conditions, Micro Burst and Wind Shear Alerts, as detected by the WSP. This information is displayed in a standard format in relationship to the runway so the controller can alert the pilot of a possible wind shear encounter.

      (a) Ten lines of information appear on the RDT.

      (b) RDT Line 1. The first line displayed of the RDT provides the Airport Winds and Zulu time.

      (c) RDT Lines 2 through 9 on the RDT displays the runways for the active configuration. When WSP detects a wind shear (WSA) or microburst (MBA), the alert message describing the type and magnitude is displayed next to the runway being affected. Alerts associated with a microburst (WSA or MBA) display a "loss" (-) of airspeed, while Alerts associated with a gust front display a "gain" (+). A WSA involves an airspeed loss of 15 to 29 knots while a MBA involves an airspeed loss of 30 knots or greater.

      (d) RDT Line 10 displays the system status.

(8) RDT AUDIBLE ALERTS. The RDT generates an audible warning when the RDT goes from non-alert to alert status and when a microburst alert is first issued. This warning is not repeated with each new alert message. However, if the RDT goes from alert to non-alert status and remains in non-alert status for five or more minutes, the audible alert will sound again when the next alert occurs.

CHAPTER 3: STRIP MARKING

1. PROCEDURES

a. There is no requirement for handwritten strips in the tower when the EFSTS is operational. If the EFSTS is out of service, handwritten strips must be used in the tower and kept until advised by the OS/CIC. Handwritten IFR and VFR strips should emulate the format of FDIO generated strips to the extent logical and feasible. Additional approved strip marking may be used at controller discretion.

b. TOWER Strip Marking:

(1) Departures:

Figure 4 – 1

1 2 3 4	2A	5	8	9	9B	10	11	12
		6	8A			13	14	15
		7	8B	9A	9C	16	17	18

Block	Information Recorded
1.	Aircraft identification.
2.	Revision number (FDIO locations only).
2A.	Strip request originator.
3.	Number of aircraft if more than one "2/", heavy aircraft indicator "H/" if appropriate, type of aircraft, and aircraft equipment suffix.
4.	Computer identification number.
5.	Secondary radar (beacon) code assigned.
6.	Proposed departure time.
7.	Requested altitude.
8.	Departure airport.
8A.	Large "V" to indicate VFR, if needed.
8B.	CFR (if applicable) cross out CFR and write xxVxx (xx is time in minutes) when released from TMU.
9.	**Computer-generated:** Route and/or destination. Manually enter altitude/altitude restrictions in the order flown, if appropriate.
9.	**Hand-prepared:** Clearance limit, route, altitude/altitude restrictions in the order flown, if appropriate.
9A.	Remarks. Large D if Gamecock Delta is active.
9B.	**OPTIONAL USE.**
9C.	"X" followed by the intersection designator used for aircraft departing from an intersection.
10-18.	BLOCK 15 - ATIS code received by pilot indicating pilot has received the current ATIS. BLOCK 16 - Departure Runway BLOCK 17 - Intra-facility Coordination BLOCK 18 - Clearance issued

(2) Special VFR (SVFR). All SVFR flight plans must be entered into the NAS.

Figure 4 - 2

1 2 3 4	2A	5	8	9		9B	10	11	12
		6	8A				13	14	15
		7	8B	9A		9C	16	17	18

Block	Information Recorded
1.	Aircraft identification.
2.	Revision number (FDIO locations only).
2A.	Strip request originator.
3.	Number of aircraft if more than one "2/", heavy aircraft indicator "H/" if appropriate, type of aircraft, and aircraft equipment suffix.
4.	Computer identification number.
5.	Secondary radar (beacon) code assigned.
6.	Proposed departure time.
7.	Requested altitude.
8.	Departure airport.
8A.	Large "SVFR".
9.	**Computer-generated:** Route and/or destination. Manually enter altitude/altitude restrictions in the order flown, if appropriate.
9.	**Hand-prepared:** Clearance limit, route, altitude/altitude restrictions in the order flown, if appropriate.
9A.	Manually enter **"SVFR"** and any other pertinent remarks.
9B.	**OPTIONAL USE.**
9C.	Intersection designator used for aircraft departing from an intersection.
10-18.	BLOCK 15 - ATIS code received by pilot indicating pilot has received the current ATIS. BLOCK 16 - Departure Runway BLOCK 17 - Intra-facility Coordination BLOCK 18 - Clearance issued

c. TRACON Strip Marking:
   (1) Arrivals (VFR Optional):

Figure 4 - 3

1 2 3 4	2A	5	8	9		9B	10	11	12
		6	8A				13	14	15
		7	8B	9A		9C	16	17	18

Block	Information Recorded
1.	Aircraft identification.
2.	Revision number (FDIO locations only).
2A.	Strip request originator.
3.	Number of aircraft if more than one (2/), heavy aircraft indicator (H/) if appropriate, type of aircraft, and aircraft equipment suffix.
4.	Computer identification number.
5.	Secondary radar (beacon) code assigned.
6.	The previous fix will be printed.
7.	Coordination fix.

Block	Information Recorded
8A.	Large "V" to indicate VFR flight plan. Large O to indicate OPD arrival.
8B.	→ D to indicate aircraft is approved direct to the next fix or airport.
9.	Altitude (in hundreds of feet)
9A.	Destination Airport and any pertinent remarks.
9B.	When a pilot cancels IFR, mark IAW 7110.65 and write time. When multiple approaches will be flown, indicate each approach to be flown, place a down arrow next to approach when cleared.
9C.	Approach to be flown and/or landing runway if known.
10-18.	BLOCK 10 - "R" indicating RADAR Contact or "P" for Point-Out. BLOCK 11 and 12 – RADAR Contact or Point Out time. BLOCK 14 - Inter-facility Coordination. BLOCK 15 - ATIS code received by pilot indicating pilot has received the current ATIS or a check mark indicating the pilot has the weather at a satellite airport. BLOCK 17 - Intra-facility Coordination

(2) Departures:

Figure 4 - 4

1 2 3 4	2A	5 6 7	8 8A 8B	9 9A	9B 9C	10 13 16	11 14 17	12 15 18

Block	Information Recorded
1.	Aircraft identification.
2.	Revision number (FDIO locations only).
2A.	Strip request originator.
3.	Number of aircraft if more than one "2/", heavy aircraft indicator "H/" if appropriate, type of aircraft, and aircraft equipment suffix.
4.	Computer identification number.
5.	Secondary radar (beacon) code assigned.
6.	Proposed departure time.
7.	Requested altitude.
8.	Departure airport.
8A.	Large "V" to indicate VFR, if needed.
8B.	Heading instructions issued by the tower via the EFSTS.
9.	**Computer-generated:** Route and/or destination. Manually enter altitude/altitude restrictions in the order flown, if appropriate.
9.	**Hand-prepared:** Clearance limit, route, altitude/altitude restrictions in the order flown, if appropriate.
9A.	"SVFR" or any pertinent remarks.
10-18.	BLOCK 10 - "R" indicating RADAR Contact or "P" for Point-Out. BLOCK 11 and 12 – RADAR Contact or Point Out time. BLOCK 14 - Inter-facility Coordination BLOCK 15 – Altitude assigned by the tower via the EFSTS. BLOCK 16 - Departure Runway BLOCK 17 - Intra-facility Coordination

(3) Overflights:

Figure 4 - 5

1 2 3 4	2A	5	8	9	9B	10	11	12
		6	8A			13	14	15
		7	8B	9A	9C	16	17	18

Block	Information Recorded
1.	Aircraft identification.
2.	Revision number (FDIO locations only).
2A.	Strip request originator.
3.	Number of aircraft if more than one "2/", heavy aircraft indicator "H/" if appropriate, type of aircraft, and aircraft equipment suffix.
4.	Computer identification number.
5.	Secondary radar (beacon) code assigned.
6.	Coordination fix.
7.	Overflight coordination indicator.
8.	Estimated Time of Arrival.
8A.	Large "V" to indicate VFR, if needed.
9.	**Computer-generated:** Altitude and route of flight through the terminal area.
9.	**Hand-prepared:** Clearance limit, route, altitude/altitude restrictions in the order flown, if appropriate.
9A.	"SVFR" or any pertinent remarks.
10-18.	BLOCK 10 - "R" indicating RADAR Contact or "P" for Point-Out. BLOCK 11 and 12 – RADAR Contact or Point Out time. BLOCK 14 - Inter-facility Coordination. BLOCK 17 - Intra-facility Coordination

(4) Special VFR (SVFR):

Figure 4 - 6

1 2 3 4	2A	5	8	9	9B	10	11	12
		6	8A			13	14	15
		7	8B	9A	9C	16	17	18

Block	Information Recorded
1.	Aircraft identification.
2.	Revision number (FDIO locations only).
2A.	Strip request originator.
3.	Number of aircraft if more than one "2/", heavy aircraft indicator "H/" if appropriate, type of aircraft, and aircraft equipment suffix.
4.	Computer identification number.
5.	Secondary radar (beacon) code assigned.
6.	Coordination fix.
7.	Overflight coordination indicator.
8.	Estimated Time of Arrival.
8A.	Large "SVFR".
9.	**Computer-generated:** Altitude and route of flight through the terminal area.

Block	Information Recorded
9.	**Hand-prepared:** Clearance limit, route, altitude/altitude restrictions in the order flown, if appropriate.
9A.	Remarks.
10-18.	BLOCK 10 - "R" indicating RADAR Contact or "P" for Point-Out. BLOCK 11 and 12 – RADAR Contact or Point Out time. BLOCK 14 - Inter-facility Coordination. BLOCK 17 - Intra-facility Coordination

d. Contractions:

    (1) The following contractions **must** be used in inter/intra-facility coordination:

        (a) W = WEST Radar

        (b) E = EAST Radar

        (c) T = CHS Tower

        (d) A = ZJX ARTCC ALD LO

        (e) C = ZJX ARTCC CHS LO

        (f) J = ZJX ARTCC CAE LO

        (g) B = NBC Approach

        (h) U = CAE Approach

        (i) S = SSC Approach

        (j) M = MYR Approach

        (k) G = DOUBLESHOT (SSC)

        (l) L = SEALORD

CHAPTER 4: TOWER FLIGHT DATA (FD)

1. RESPONSIBILITIES

a. In addition to those duties outlined in JO 7110.65, FD must:

(1) Receive, disseminate, and retain pertinent weather information received from any source.

(2) Disseminate official weather to all facility positions by entering the information on the Status Information Area (SIA) page of the Information Display System (IDS) in the format shown in figure 6-1.

(3) Enter information into the appropriate areas on the SIA page of the IDS.

(4) Ensure information contained/displayed on the IDS SIA page is accurate.

Figure 6 – 1
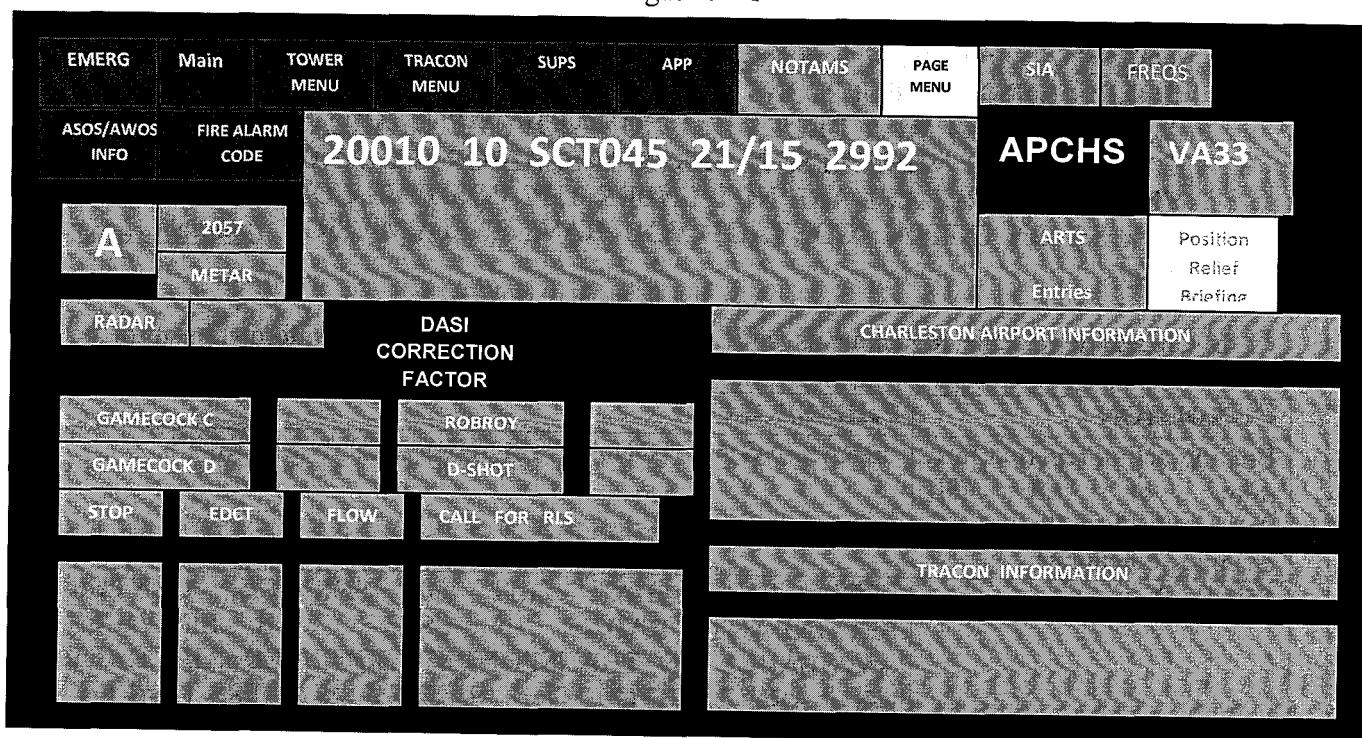
(5) Enter the visibility into the ASOS Operational Interface Device as directed by the Local Controller, Cab Coordinator, or FLM/CIC.

(6) Review, amend and post flight progress strips from the FDIO. Make amendments as directed.

(7) When advised that Gamecock D is active, mark SWPFX departures with a large "D" in block 9A.

(8) Amend departure flight progress strips that are filed CHS..CHS...,or KCHS..CHS..., to remove the second CHS. This ensures the ARTS IIE full data block will auto-acquire with the appropriate departure sector position symbol, print on the correct TRACON EFSTS printer and auto-handoff to the next facility in the NAS.

(9) Amend Callsign of aircraft filed CHS..CH..CHS to approved abbreviations.

(10) Forward any PIREP received to the appropriate intra-facility positions and if needed to the OS/CIC for further dissemination.

(11) Prepare, record, and monitor the Automatic Terminal Information Service (ATIS) as instructed below.

2. AUTOMATIC TERMINAL INFORMATION SERVICE (ATIS)

a. The ATIS must be broadcast IAW JO 7110.65, and use the following format:

"CHARLESTON AIRPORT INFORMATION _(phonetic letter code)_, _(time)_ZULU, WEATHER, WIND_(direction/velocity)_, VISIBILITY_(miles)_, _(Official METAR)_ TEMPERATURE_(Celsius)_, DEWPOINT_(Celsius)_, ALTIMETER_(inches of mercury)_, SIMULTANEOUS APPROACHES TO INTERSECTING RUNWAYS IN USE (if required), EXPECT _type of approach(s) to runway(s)_ , NOTICE TO AIRMEN _(pertinent NOTAMS), (Information from below as required)_, ALL AIRCRAFT READBACK ALL HOLD SHORT INSTRUCTIONS AND ASSIGNED ALTITUDES. ATTENTION ALL AIRCRAFT, TAXIWAY DELTA IS A NON-MOVEMENT AREA, USE EXTREME CAUTION FOR VEHICLES, PEDESTRIANS, AIRCRAFT, AND/OR JETBLAST. VEHICLES/AIRCRAFT ARE NOT UNDER THE POSITIVE CONTROL OF ATC. ADVISE ON INITIAL CONTACT YOU HAVE INFORMATION _(phonetic letter code)_."

b. In addition to the requirements in JO 7110.65, 2-9-3, the following information must be included in the ATIS broadcast whenever the conditions shown exist:

CONDITION	PHRASEOLOGY
Braking action reported **fair, poor or nil** OR deteriorating/rapidly changing conditions.	**"BRAKING ACTION ADVISORIES ARE IN EFFECT".**
CENRAP	**"PRIMARY RADAR OUT OF SERVICE, CENTER SECONDARY RADAR IN USE. VFR SERVICES AVAILABLE TO TRANSPONDER EQUIPPED AIRCRAFT AND ARE LIMITED TO: SAFTEY ALERTS, TRAFFIC ADVISORIES, AND SEQUENCING WITHIN 20 NM OF CHS AIRPORT."**
CENRAP-Plus	**"SECONDARY RADAR OUT OF SERVICE, CENTER SECONDARY RADAR IN USE. VFR SERVICES AVAILABLE TO TRANSPONDER EQUIPPED AIRCRAFT AND ARE LIMITED TO: SAFTEY ALERTS, TRAFFIC ADVISORIES, AND SEQUENCING WITHIN 20 NM OF CHS AIRPORT."**
Bird Advisories	**"BIRD ADVISORIES ARE IN EFFECT (INCLUDE ANY SPECIFIC INFORMATION AVAILABLE)."**
When Notified by AM	**"MILITARY BIRD WATCH CONDITIONS (MODERATE OR SEVERE)."**

CONDITION	PHRASEOLOGY
Low Level Wind Shear Advisories	"LOW LEVEL WIND SHEAR ADVISORIES ARE IN EFFECT".
Hazardous weather may impact operations within 150 NM of Charleston's airspace	"ATTENTION ALL AIRCRAFT, HAZARDOUS WEATHER INFORMATION (SIGMENT, Convective SIGMET, AIRMET, Urgent Pilot Weather Report (UUA), or Center Weather Advisory (CWA), Number or Numbers) FOR (geographical area) AVAILABLE ON HIWAS, FLIGHT WATCH, OR FLIGHT SERVICE FREQUENCIES."
LAHSO operations	"LAND AND HOLD SHORT OPERATIONS IN EFFECT"
Landing over raised arresting cable Runway 15 approach end/Runway 33 departure end:	"YOUR DEPARTURE/ARRIVAL WILL BE TOWARDS A RAISED BAK-12 ARRESTING GEAR CABLE, LOCATED 1200 FEET FROM THE APPROACH END OF RWY 15 OR DEPARTURE END RWY 33"
Landing over raised arresting cable Runway 33 approach end/Runway 15 departure end:	"YOUR DEPARTURE/ARRIVAL WILL BE TOWARDS A RAISED BAK-12 ARRESTING GEAR CABLE, LOCATED 1460 FEET FROM THE APPROACH END OF RWY 33 OR DEPARTURE END RWY 15"
Laser Illumination reported	"UNAUTHORIZED LASER ILLUMINATION EVENT, event time (UTC), general positional information (location and altitude), and a general description of the event (color, intensity, direction of beam)"
MANPADS Alert	"MANPADS ALERT. EXERCISE EXTREME CAUTION. (nature and location of threat) (reported or observed and by whom) ADVISE ON INITIAL CONTACT IF YOU WANT TO DIVERT."

   c. Complete the following after transmitting each new ATIS.
      (1) Advise LC and GC verbally of the new ATIS code.
      (2) Solicit the tower traffic count from LC.
      (3) Enter a "GI" message addressed to the TRACON in the FDIO. Include the new ATIS code, time, and the hourly CHS Tower local count. The FDIO entry MUST be in this format.
         (a) Type "GI".
         (b) Type "CHSA".
         (c) Type the clear weather symbol "O".
         (d) Type the new ATIS code.
         (e) Type the time for the hour of traffic count, i.e. 12-13Z.
         (f) Type the tower local count.
         (g) Enter the message.

CHAPTER 5: CLEARANCE DELIVERY (CD)

1. **RESPONSIBILITIES**
   a. In addition to those duties outlined in JO 7110.65, CD must:
      (1) Assume the responsibilities of the Flight Data position when combined.
      (2) Monitor and operate frequencies 127.325 and 291.65.
      (3) Answer the ZJX 997 line and utilize this line to obtain flow restrictions and releases for departures.
      (4) Forward any PIREP received to the appropriate intra-facility positions and as needed to the OS/CIC for further dissemination.
      (5) Request release from ZJX or Doubleshot as appropriate for aircraft filed on AR routes or associated fixes (e.g., METTA, MILOE or OLDEY.)
      (6) Ensure aircraft filed 10,000' or below to destinations south of V1 have either V1 or BASSO..STARY..destination in the flight plan.
      (7) When the EFSTS is operational:
         (a) Ensure **ALL** IFR flight plans are entered into the NAS via the FDIO.
         (b) Ensure **ALL** VFR flight plans are entered into the NAS via the ARTS keyboard or the FDIO.
      (8) When the EFSTS is not operational:
         (a) Ensure **ALL** flight plan information is entered into the NAS via the FDIO or the ARTS and forward all information via FDIO "strip request" to the Radar Flight Data position.
      (9) When the ARTS IIE is not available assign beacon codes IAW Chapter 1, 2 a. (4) and:
         (a) Obtain IFR flight plans from ZJX CHS Lo Sector via the ZJX 997 line dial 59 and forward the flight plans to the appropriate Radar Flight Data position.
         (b) Prepare and/or enter ALL VFR flight plans according to route of flight as follows:
            1) Flight plans terminating within CHS airspace must be verbally coordinated with the appropriate Radar Flight Data position.
            2) Aircraft leaving the CHS terminal area must be verbally coordinated with the appropriate Radar Flight Data position and may be entered into the NAS via the FDIO.
         (c) Enter departure message into the FDIO.
      (10) Ensure aircraft are assigned an altitude appropriate to the direction of flight.
      (11) Assign the following altitudes:
         (a) IFR aircraft (except practice approaches) - maintain 4,000 feet or requested altitude if less than 4000 feet.
         (b) VFR aircraft - maintain at or below 3,500 feet.
         (c) Practice approach aircraft- maintain 2000 feet.
      (12) Assign departure frequencies as follows:
         (a) Aircraft filed on a course of 155 clockwise to a heading of 335 must be assigned the West Radar frequency.
         (b) Aircraft departing on a course of 336 clockwise to 154 must be assigned the East Radar frequency.

CHAPTER 6: GROUND CONTROL (GC)

1. RESPONSIBILITIES

  a. Ground Control area of jurisdiction is defined as all movement areas except active Runways.

  b. In addition to those duties outlined in JO 7110.65, GC must:

    (1) Assume responsibilities of the Clearance Delivery/Flight Data positions when combined.

    (2) Monitor and operate frequencies 121.9 and 348.6.

    (3) Answer the "Air Force Phone" containing direct ring lines to BASOPS, Command Post, Fire, and Security.

    (4) Activate the PCAS and disseminate information as required.

    (5) Check the PCAS daily at 0900L.

      (a) Ensure that Medic (except on weekends and holidays), Base Ops, Fire, and Security are on and that each line is suitable for use. Report any discrepancies to the OS/CIC.

      (b) State that the activation is a test. Example: *"This is the Tower with the daily Crash Phone test, all stations acknowledge when called."*

    (6) Direct emergency equipment as required.

    (7) Annotate the assigned runway prior to passing the strip to the Local Control position.

    (8) Maintain a written record of all arrivals and departures until they are no longer a factor. This record must contain arrival information on the right side of the pad and departure information on the left. Additionally, GC must write the vehicle ID and any relevant information concerning equipment or personnel on runways in the center of the pad.

    (9) Forward any PIREP received to the appropriate intra-facility positions and to the OS/CIC for further dissemination.

    (10) Verbally coordinate with LC for intersection departures.

    (11) Coordinate with LC prior to taxiing aircraft for opposite direction departures.

    (12) Excluding ALL C-17's, Advise all aircraft going to the military ramp to hold short of Taxiway D and wait for a "Follow Me" vehicle to parking.

    (13) Ensure that aircraft have the current ATIS information and the flight progress strip has been marked IAW the local strip marking requirements.

    (14) Inform Local Control (LC) when a taxiway is not available for runway exit. Example: *"Alpha Blocked"*

2. AIRPORT OPERATING PRACTICES

  a. The following operating practices must be followed:

    (1) For operations of a short duration on or crossing a runway, all vehicle operators must maintain two-way communications with Charleston Ground Control. Vehicles/Aircraft that will operate on or along active runways for a longer duration must be advised by the Ground Controller to hold short of the active runway and instructed to contact Local Control (Tower). Local Control must instruct vehicles/aircraft to contact Ground Control upon exiting the runway. Aircraft using Taxiways J, E, and F may be retained on Local Control Frequency with coordination.

    (2) When feasible, vehicular movement should be performed via airport perimeter road.

    (3) Use positive coordination and control when crossing active runways.

    (4) Local Control must advise Ground Control of all inbound non-ARTS targets.

(5) A red light (memory aid) is located at the Local Control and Ground Control positions. The control is located between LC and GC. The light should be used for operations of a short duration. Use the light in the following manner:

(a) The Ground Controller must turn the light on when approval is received from Local Control for men or equipment on Ground Control frequency to operate on or near a runway. As soon as men or equipment are clear of the runway, Ground Control must advise Local Control and Ground Control must turn the light off.

(b) When Local Control conducts operations on or along a runway, the Local Controller must activate the red light, and extinguish the light when the vehicle/equipment exits the runway.

(6) Runway Incursion Prevention Devices.

(a) Two red strip holders are located at the FD/CD/GC position. One annotating RUNWAY 15/33 CLOSED and one annotating RUNWAY 3/21 CLOSED. Upon notification of runway closure, GC must physically take the appropriate strip holder and place it in a visible location within his/her work area. Return the strip to the appropriate bay when the runway is re-opened.

CHAPTER 7: LOCAL CONTROL (LC)

1. RESPONSIBILITIES

a) Local Control area of jurisdiction is defined as the active runways and the CHS Local Control Departure Area (see section 3.)

b) In addition to those duties outlined in JO 7110.65, LC must:

(1) Assume responsibilities of Ground Control when combined.

(2) Monitor and operate frequencies 126.0 and 239.0 and monitor emergency frequencies 121.5 and 243.0

(3) Take visibility observations when the visibility decreases to, or is less than four miles.

    (a) Instruct FD to transmit the visibility observation via the ASOS.

(4) Provide visual separation on all arriving aircraft within 5 miles when the weather is at least 5 miles visibility and 2000' ceiling. Local must advise the TRACON of any restriction to visibility which prevents them from providing visual separation.

(5) Operate the Airport Lighting Control Panel, Instrument Landing System (ILS) Control Panel, and Approach Lighting System(s) Control Panel as needed.

(6) Tabulate aircraft operations on the traffic counter by clicking once for each departure into or arrival from the radar/tower traffic pattern. Separate military locals from civil locals.

    (a) Only aircraft that depart CHS, enter the radar/tower traffic pattern, and then return to CHS should be counted.

    (b) The count always begins with the first departure into the radar/tower pattern and ends with the last arrival from the radar/tower pattern.

    (c) There is no extra count for overhead/circling approaches and no count for point outs or local helicopter operations.

    As an example, if an aircraft comes from somewhere else, does a practice approach and then departs to somewhere else, it receives no count (see #1 above). If that same aircraft, rather than departing the area after the first practice approach, instead departs and enters the radar/tower pattern to return to CHS, that would be a one count. The initial arrival would not count; the first count would be the subsequent departure from CHS into the radar/tower pattern (see #2 above). It would then be one count for each arrival/departure thereafter until the aircraft full stops or departs the area. The final count would be the last arrival (whether full stop or option).

(7) Issue control instructions as necessary to establish separation when arriving aircraft execute go-around(s) procedures. Controllers should take into consideration at a minimum the following factors:

    (a) Operational position configuration.

    (b) Communication and/or control transfer.

    (c) Runway configuration.

    (d) Wake Turbulence.

    (e) Weather Conditions.

    (f) Type of approach (instrument or visual).

(8) Solicit a sequence from the appropriate position for aircraft requesting closed traffic as necessary.

(9) Maintain a written record of all arrivals and departures until they are no longer a factor. This record must contain arrival information on the right side of the pad and departure

information on the left. Additionally, LC must write the vehicle ID and any relevant information concerning equipment or personnel on runways in the center of the pad.

(10) Assign a heading to aircraft filed SWPFX SID when Gamecock Delta is active.

(11) Coordinate all opposite direction departures with the appropriate departure controller(s).

(12) Inform Base Operations (BOPS) of all military and military contract aircraft arrival and departures via the "shout line", the Air Force phone, or commercial line when these aircraft are using the military ramp area.

(13) Inform the appropriate Radar Position of any aircraft without an acquired departure track. *"No Tag."*

(14) Forward any PIREP received to the appropriate intra-facility positions and to the OS/CIC for further dissemination.

(15) Solicit an initial altitude higher than 4000', if operationally advantageous, upon pilot request with appropriate departure controller(s).

(16) Ensure that the DBRITE range is set to a minimum of 20 miles and all T, W, and E tags are displayed.

(17) Coordinate with the appropriate departure controller(s) prior to releasing SVFR aircraft.

(18) May initiate approval for aircraft being controlled by WEST or EAST RADAR, to enter/transition the departure area using the ARTS IIE (W or E, *, slew and enter or ΔΔΔ), or verbally. Within the confines of the departure area, aircraft **MUST NOT** reverse course, commence a procedure turn, or initiate any other maneuver that requires a turn away from a direct course to the airport of intended landing unless otherwise coordinated.

(19) During LAHSO operations, if requested by the pilot, issue the following available landing distances for CHS:
  (a) "RUNWAY 15 AVAILABLE LANDING DISTANCE 5450 FEET"
  (b) "RUNWAY 21 LAHSO NOT AVAILABLE"
  (c) "RUNWAY 33 AVAILABLE LANDING DISTANCE 2650 FEET"
  (d) "RUNWAY 3 AVAILABLE LANDING DISTANCE 5400 FEET"

(20) Ensure that departing aircraft have the current ATIS information and the flight progress strip has been marked IAW the local strip marking requirements. Advise landing aircraft of any changes to the ATIS while on tower frequency.

2. AIRPORT OPERATING PRACTICES
a) The following good operating practices must be followed:

  (1) For operations of a short duration on runways or crossing a runway, vehicle operators must maintain two-way communications with Charleston Ground Control. Vehicles/Aircraft that will operate on or along active runways for a longer duration must be advised by the Ground Controller to hold short of the active runway and contact Local Control (Tower). Local Control must instruct vehicles/aircraft to contact Ground Control upon exiting the runway. Aircraft using Taxiways J, E, and F may be retained on Local Control Frequency with coordination.

  (2) When feasible, vehicular movement should be performed via airport perimeter road.

  (3) Use positive coordination and control when crossing active runways.

  (4) Local Control must advise Ground Control of all inbound non-ARTS targets.

(5) A red light (memory aid) is located at the Local Control and Ground Control positions. The control is located between LC and GC. The light should be used for operations of a short duration. Use the light in the following manner:

(a) The Ground Controller must turn the light on when approval is received from Local Control for men or equipment on Ground Control frequency to operate on or near a runway. As soon as men or equipment are clear of runway, Ground Control must advise Local Control and Ground Control must turn the light off.

(b) When Local Control conducts operations on or along a runway, the Local Controller must activate the red light and extinguish the light when the vehicle/equipment exits the runway.

(6) Line Up And Wait (LUAW). LUAW operations must be conducted in accordance with FAA Order(s) 7110.65 and 7210.3. Some items are included in this section for ease of reference.

(a) LUAW operations are not authorized if the Local Control position is performing the function of any other position.

(b) As memory joggers:

1) An orange strip holder announcing "NO LUAW" is located at the LC position and must be used when LUAW cannot be approved. LC must physically take the strip holder and place it in a visible location within his/her work area. Return the strip to the bay when LUAW operations are authorized.

2) The Local Controller must pick up the flight progress strip of the aircraft instructed to "*LINE UP AND WAIT*" and hold it until the aircraft until the aircraft starts takeoff roll.

(c) Landing Clearance. Do not issue a landing clearance to an aircraft requesting a full-stop, touch-and-go, stop-and-go, option, or unrestricted low approach on the same runway with an aircraft that is holding in position or taxiing to line up and wait until the aircraft in position starts takeoff roll.

(d) Runway Geometry. There are no unique runway configurations or other airport geometric considerations applicable to LUAW operations at CHS Airport.

(e) Weather. Do not authorize an aircraft to line up and wait when the departure point is not visible from the tower.

(f) Fleet mix. There are no unique fleet mix considerations for LUAW operations at CHS Airport.

(g) Traffic volume/complexity. There are no traffic volume or complexity restrictions to LUAW operations at CHS Airport.

(h) Obstructions to Visibility. There are no known or permanent obstructions or limitations to visibility from controller-to-aircraft and aircraft-to-aircraft perspectives that impact LUAW operations at CHS Airport.

(7) Runway Incursion Prevention Devices.

(a) Two red strip holders are located the LC position. One annotating RUNWAY 15/33 CLOSED and one annotating RUNWAY 3/21 CLOSED. Upon notification of runway closure, LC must physically take the appropriate strip holder and place it in a visible location within his/her work area. Return the strip to the appropriate bay when the runway is re-opened.

(b) The ARTS may also be used to remind controllers of runway closures.

(9) BAK-12H Arresting Barrier Operations

(a) Raise the BAK12-H cable as requested.

Note: If an emergency requires an approach end cable, both the approach and departure end cables must be raised.

        (b) Lower the cables when:

           1) Departing aircraft is airborne and crosses the departure end cable.

           2) Arriving aircraft has crossed/cleared all requested cables.

           3) Tower must report all malfunctions/outages to AM and RCIC/OS.

3. OPPOSITE DIRECTION OPERATIONS

a) Opposite Direction Operations (ODO) are inherently dangerous and require extra attention. They should not be used for pilot convenience.

b) The provisions of this paragraph are applicable to aircraft receiving radar separation services but apply only when there are at least two (2) aircraft involved (an arrival and a departure, or an arrival and an arrival) and those two aircraft are in a proximity in which action must be taken to ensure separation.

c) All coordination should normally be accomplished by WR/ER and LC. WR/ER is responsible for informing the OS/RCIC of planned opposite direction operations. LC is responsible for informing the TCIC of planned opposite direction operations. The RCIC/OS and TCIC must ensure all coordination is on a recorded line.

d) Traffic advisories must be issued to all aircraft involved in an opposite direction operation.

Examples:

"OPPOSITE DIRECTION TRAFFIC (distance) MILE FINAL, (type aircraft)."

"OPPOSITE DIRECTION TRAFFIC DEPARTING RUNWAY (number), (type aircraft)."

e) LC and WR/ER must each use at least one of the following as a memory aid until the operation is complete:

    (9) Write "ODO" in block 9 of the applicable flight progress strip

    (10) Highlight the aircraft call sign in the maintained written record of arrivals and departures

    (11) Use the ARTS to indicate "ODO" or runway to be used in the aircraft scratch pad

    (12) Use the ARTS to indicate a 10 mile area ring centered on the airport and/or stationary alphanumeric message

f) The provisions of JO 7110.65, Paragraph 7-2-1, Visual Separation, cannot be applied when conducting opposite direction operations.

g) When conducting opposite direction operations and utilizing the cutoff points established in this paragraph, LC and WR/ER must consider aircraft performance, type of approach, operational position configuration, runway configuration, and weather conditions.

NOTE - It is incumbent to remember and apply all other provisions of JO 7110.65 including, but not limited to, providing IFR aircraft turn on at or below glide slope intercept altitude, complying with approach gate requirements, and placing the aircraft in a position to execute a stable approach.

h) IFR Opposite Direction Departures:

(9) LC is responsible for coordinating opposite direction departures with WR/ER. Coordination must be on a recorded line, state "opposite direction," and include call sign, type, departure runway, and initial heading or route.

Example: "APREQ, OPPOSITE DIRECTION DEPARTURE, RUNWAY (number), (aircraft type), (aircraft call sign), RUNWAY HEADING.

(10) Opposite direction departures will be assigned runway heading and an initial altitude of 2000 feet unless otherwise coordinated with WR/ER.

(11) Until the departure is airborne and on a course (or at an altitude) to avoid conflict, WR/ER must ensure that arrivals remain at least:

(a) 10 flying miles from the runway; or

(b) five (5) flying miles from the runway if vertical separation is being applied.

i) IFR Opposite Direction Arrivals:

(9) WR/ER is responsible for coordinating opposite direction arrivals with LC. Coordination must be on a recorded line, state "opposite direction," and include call sign, type, current location and arrival runway.

Example: "APREQ, OPPOSITE DIRECTION ARRIVAL, RUNWAY (number), (aircraft type), (location), (aircraft call sign).

(10) Automatic departures are cancelled once an opposite direction arrival is within 15 flying miles of the airport. They shall be resumed after the arrival has landed.

(11) During operations between arrivals to opposite ends of the same runway, until the first arrival crosses the landing threshold, WR/ER must ensure that the second arrival remains at least:

(a) 10 flying miles from the runway; or

(b) five (5) flying miles from the runway if vertical separation is being applied.
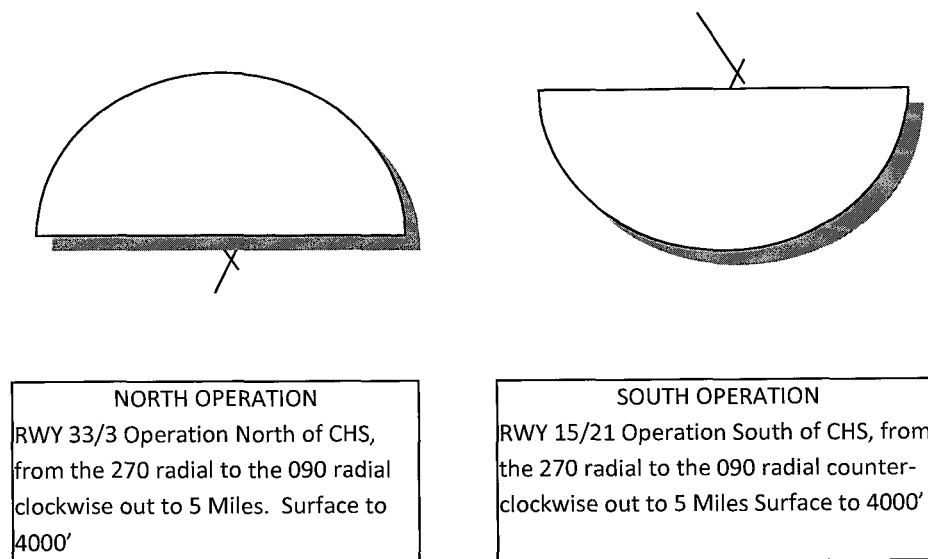
j) VFR Opposite Direction Operations:

(9) Ensure VFR aircraft are turned to avoid conflict with opposing IFR/VFR traffic.

(10) An aircraft established in the traffic pattern shall not be allowed to turn base leg until an opposite direction departure is airborne and issued a turn to avoid conflict or an opposite direction arrival has crossed the runway threshold.

4. LOCAL CONTROL DEPARTURE AREA

a) Charleston Tower area of jurisdiction is determined by the runway(s) in use. Charleston Approach Control delegates the depicted airspace to the Charleston Tower during the runway configurations depicted in Figure 9-1:

Figure 9 – 1 *(not to scale)*

NORTH OPERATION
RWY 33/3 Operation North of CHS, from the 270 radial to the 090 radial clockwise out to 5 Miles. Surface to 4000'

SOUTH OPERATION
RWY 15/21 Operation South of CHS, from the 270 radial to the 090 radial counter-clockwise out to 5 Miles Surface to 4000'

b) Use of Runway configurations other than NORTH or SOUTH must be coordinated and agreed upon by TCIC/TOS and RCIC/OS and use runway utilization procedures listed in this order.

c) LC must ensure departing aircraft (except practice approaches) enter into the appropriate sector's airspace on a SID or on assigned headings that must not exceed the following limits:

    (1) Runway 15/21 departure, 100 degrees clockwise to 260 degrees inclusive.

    (2) Runway 33/3 departure, 280 degrees clockwise to 080 degrees inclusive.

d) Conditions permitting, LC must assign all missed approaches runway heading and 2000 feet. Missed approach/Practice approach aircraft assigned other than runway heading and 2000 feet must be coordinated with radar.

e) All aircraft are released to departure as follows:

    (1) Standard Instrument Departures are released for turns in the shortest direction towards the fix for which the departure is named.

    (2) Other departures are released for turns in the shortest direction towards the next fix or airway.

    (3) Practice approaches are released for turns away from the crossing runway's departure path.

f) LC must provide a minimum of 5 miles between successive aircraft on the same SID.

g) LC must coordinate all departure information with the appropriate radar position. ("Scanning the strip" through the EFSTS is coordination.)

h) LC must allow an aircraft to fly assigned SID unless an operational advantage would be gained.

i) LC must allow aircraft to climb to the standard initial altitude assigned by CD unless a lower altitude is required for a point out or a higher altitude is coordinated.

4. ELECTRONIC FLIGHT STRIP TRANSFER SYSTEM

a) Procedures

    (1) When the EFSTS is operational:

        (a) Select the departure runway in the EFSTS keypad.

        (b) Enter assigned headings, if needed, into the EFSTS keypad by one of the following methods:

            1) "RH" for aircraft assigned runway heading until outside of tower delegated airspace.

            2) A heading in two digit format, followed by the "*" for aircraft assigned a heading until outside of tower delegated airspace.

            3) A heading in two digit format, for aircraft assigned a heading and released to departure control to make the shortest turn to on course. Aircraft assigned runway heading will be shown as 33, 15, 21 or 3.

            4) Aircraft taken off a SID must be entered as above.

            5) No heading entry is used for aircraft assigned runway heading or a SID and released to departure control as above.

        (c) Enter assigned altitudes only when different from the standard initial departure altitude.

    (2) When EFSTS is not operational:

        (a) Verbally coordinate **ALL** release instructions/restrictions to the appropriate departure controller prior to departure clearance.

        (b) Verbally give appropriate departure controller a rolling call.

5. DIGITAL BRIGHT BRITE RADAR INDICATOR TOWER EQUIPMENT (DBRITE)

a) Procedures

    (1) Radar qualified personnel assigned to perform the duties of a local controller may use certified tower radar displays for any terminal radar function provided their ability to satisfy FAA's air traffic responsibilities regarding the aircraft operating on the runways or within the Class C surface area is not impaired. It is essential that the local controller continuously scan the runways and overall traffic pattern and not direct total attention to the **DBRITE** display.

    (2) Personnel assigned to perform the duties of a local controller, not radar qualified, must have passed the Radar Qualification exam and are limited to use the **DBRITE** for the following:

        (a) To determine an aircraft's identification, exact location, or spatial relationship to other aircraft.

        (b) To provide aircraft with radar traffic advisories.

        (c) To provide a direction or suggested heading to VFR aircraft as a method for radar identification or as an advisory aid to navigation.

        (d) To provide information and instructions to aircraft operating within the Class C surface area.

    (3) When Approach Control is combined in the Tower, a radar qualified controller may use the **DBRITE** display for all the functions that the TRACON radar scopes are used, (i.e. vectoring arriving aircraft to the final approach course, etc.)

CHAPTER 8: CAB COORDINATOR (CC)

1. **RESPONSIBILITIES**
   a. In addition to those duties outlined in JO 7110.65, CC must:
      (1) Act as a centralized information collection and distribution position for the Tower.
      (2) Assist the Local Control (LC) and Ground control (GC) positions in coordinating active runway crossings. CC must not approve runway crossings without prior approval from LC.
      (3) Coordinate with the CI or the appropriate TRACON position and LC for traffic flow and sequencing when necessary.
      (4) Coordinate with the appropriate position(s) during special events such as air-shows or Presidential visits.
      (5) Keep the OS/CIC informed of operational needs such as PIREP(s) and the need for runway changes.
      (6) Monitor the entire operation and assist those in need of assistance.

CHAPTER 9: RADAR FLIGHT DATA

1. WEST RADAR FLIGHT DATA (WFD) RESPONSIBILITIES

a. West Radar Flight Data must operate IAW JO 7110.65 and must:

(1) Assume all East Radar Flight Data responsibilities when combined.

(2) Receive, disseminate, and retain all pertinent weather information received.

(3) Process and forward flight plan information, prepare and amend flight progress strips and distribute them to the West/East Radar Position in a timely fashion.

(4) Ensure the TRACON information displayed on the IDS is current and accurate.

(5) Make required FDIO entries/amendments as required or directed.

2. EAST RADAR FLIGHT DATA (EFD) RESPONSIBILITIES

a. East Radar Flight Data must operate IAW JO 7110.65 and must:

(1) Receive, disseminate, and retain all pertinent weather information received.

(2) Process and forward flight plan information, prepare and amend flight progress strips and distribute them to the West/East Radar Position in a timely fashion.

(3) Ensure the TRACON information displayed on the IDS is current and accurate.

(4) Make required FDIO entries/amendments as required or directed.

CHAPTER 10: RADAR HANDOFF

1. **WEST RADAR HANDOFF (WHO) RESPONSIBILITIES**
   a. West Radar Handoff must operate IAW JO 7110.65 and must:
   (1) Assume all West Radar Flight Data, East Radar Flight Data, and East Radar Handoff responsibilities when combined.
   (2) Monitor the West Radar position via the "WEST" monitor button on the ETVS.
   (3) Monitor and operate frequency 119.85.
   (4) Operate Interphones, specifically coordinating with:
       (a) NBCA on the 68 line.
       (b) ALD LO/CAE LO on the 94 line.
       (c) CAEA on the 885 line.
       (d) SSCA on the 80 line. Answer this line when they initiate a call for West Sector.
       (e) SEALORD line. Answer this line when they initiate a call for West Sector.
       (f) CHS LO on the 22 line. Answer this line when they initiate a call for West Sector.
       (g) ZJX 997 line.
       (h) All intra-facility landlines.
   (5) Issue clearances from secondary airports in West Radar airspace, using non-radar procedures as initial separation, after coordination with the appropriate radar position. Relay clearances by one of the following methods:
       (a) Frequency 119.85 for JZI departures.
       (b) Through FSS on the ZJX 997 line.
       (c) The recorded ETVS (843) 414-2832 telephone line.
   (6) Forward any PIREP received to the appropriate intra-facility positions and to the OS/CIC for further dissemination.
   (7) Inform the OS/CIC of any delays.
   (8) Enter information on the SIA page of the IDS as directed by other TRACON positions of operation.
   (9) Inform the OS/CIC immediately of any aircraft emergency initially received in the TRACON. Advise the Tower OS/CIC when these emergencies might operationally impact operations on the airport.
   (10) Ensure that aircraft have the current ATIS information and the flight progress strip has been marked IAW the local strip marking requirements.

2. **EAST RADAR HANDOFF (EHO) RESPONSIBILITIES**
   a. East Radar Handoff must operate IAW JO 7110.65 and must:
   (1) Assume all East Radar Flight Data responsibilities when combined.
   (2) Monitor the East Radar position via the "EAST" monitor button on the ETVS.
   (3) Operate Interphones, specifically coordinating with:
       (a) SSCA on the 80 line. Answer this line when they initiate a call for East Sector or when DOUBLESHOT is open.
       (b) MYRA on the 34 line.
       (a) CHS LO on the 22 line. Answer this line when they initiate a call for East Sector.
       (b) ZJX 997 line.
       (c) All intra-facility landlines.

(4) Issue clearances from secondary airports in East Radar airspace, using non-radar procedures as initial separation, after coordination with the appropriate radar position. Relay clearances by one of the following methods:

(a) Through FSS on the ZJX 997 line.

(b) The recorded ETVS (843) 414-2832 telephone line.

(5) When advised that GAMECOCK D is active/inactive, verbally forward the information to FD/CD in the Tower.

(6) Forward any PIREP received to the appropriate intra-facility positions and to the OS/CIC for further dissemination.

(7) Inform the OS/CIC of any delays.

(8) Inform the OS/CIC immediately of any aircraft emergency initially received in the TRACON. Advise the Tower OS/CIC when these emergencies might operationally impact operations on the airport.

(9) Ensure that aircraft have the current ATIS information and the flight progress strip has been marked IAW the local strip marking requirements.

CHAPTER 11: RADAR

1. WEST RADAR (WR) RESPONSIBILITIES

a. West Radar area of jurisdiction is the CHS approach control airspace west of the Runway 15/33 extended centerline, surface up to 10000' MSL.

b. West Radar must operate IAW JO 7110.65 and must:

(1) Assume all East Radar, West Radar Handoff, and associated position responsibilities when combined.

(2) Monitor and operate frequencies 120.7 and 306.925, and monitor 121.5, 118.5, 119.3, 284.0, 317.45, and 243.0.

(3) Monitor and Operate Interphones, specifically:

(a) NBCA on the 68 line.

(b) CAEA on the 885 line.

(c) SSCA on the 80 line. Answer this line when they initiate a call for West Sector.

(d) CHS LO on the 22 line. Answer this line when they initiate a call for West Sector.

(e) ALD LO/CAE LO on the 94 line.

(f) SEALORD on dedicated shout line.

(g) All intra-facility landlines.

(4) Accept and initiate non-automated handoffs

(5) Forward any PIREP received to the appropriate intra-facility positions and to the OS/CIC for further dissemination.

(6) Advise FLM of delays involving satellite departures.

(7) Modify all position symbols under West Radar control to a "W" unless the aircraft plans a full stop landing at CHS. If the aircraft intends to full stop at CHS, modify the position symbol to a T prior to the aircraft reaching a point 10 flying miles from landing or prior to communication change. This constitutes an automatic transfer of information on the inbound.

(8) Manually enter enroute flight plan information into the ARTS in the following manner for aircraft intending to make multiple approaches at CHS and not already in the ARTS IIE on an enroute status:

(a) Call Sign (SPACE).

(b) Type aircraft (SPACE)

(c) IFR or VFR Beacon Code Button.

(d) "W" for WR. (not required when radar positions are combined).

(e) (Keyboard enter).

(f) After aircraft tags, enter an "A" in the special designator.

(9) Call the sequence to the CHS airport in the absence of CI.

(10) Advise East Radar of any aircraft intending to stay in closed traffic with the Tower.

(11) Forward sequence information to the Tower, when needed.

(12) Coordinate the following with Local Control and East Radar (as appropriate):

(a) Non-associated targets (primary) and intermittent data blocks.

(b) Aircraft conducting approaches to other than the designated runway(s) in use.

(c) Inbounds during periods when the ARTS or DBRITE are not operational.

(d) Aircraft making multiple approaches (this may be done verbally or by placing an "A" in the special designator of the ARTS data block).

(e) Climb out for missed approaches if other than standard (Runway Heading and 2000').

(f) SVFR aircraft.

(13) Coordinate with local control as soon as practical, but not later than 10 miles from the runway. Communications transfer of arriving aircraft must be accomplished no later than 5 flying miles from the end of the arrival runway.

(14) Ensure that aircraft have the current ATIS information and the flight progress strip has been marked IAW the local strip marking requirements.

2. EAST RADAR (ER) RESPONSIBILITIES

a. East Radar area of jurisdiction is the CHS approach control airspace east of the Runway 15/33 extended centerline, surface up to 10000' MSL.

b. East Radar must operate IAW JO 7110.65 and must:

(1) Assume all East Radar Handoff responsibilities when combined.

(2) Monitor and operate frequencies 135.8 and 379.925.

(3) Monitor and Operate Interphones, specifically:

    (a) SSCA on the 80 line. Answer this line when they initiate a call for East Sector or when DOUBLESHOT is open.

    (b) MYRA on the 34 line.

    (c) CHS LO on the 22 line. Answer this line when they initiate a call for East Sector.

    (d) All intra-facility landlines.

(4) Accept and initiate non-automated handoffs.

(5) Forward any PIREP received to the appropriate intra-facility positions and to the OS/CIC for further dissemination.

(6) Advise FLM of delays involving satellite departures.

(7) Modify all position symbols under East Radar control to an "E" unless the aircraft plans a full stop landing. If the aircraft intends to full stop, modify the position symbol to a T prior to the aircraft reaching a point 10 flying miles from landing. This constitutes an automatic transfer of information on the inbound.

(8) Manually enter enroute flight plan information into the ARTS in the following manner for aircraft intending to make multiple approaches at CHS and are not already in the ARTS IIE on an enroute status:

    (a) Call Sign (SPACE).

    (b) Type aircraft.

    (c) IFR or VFR Beacon Code Button.

    (d) "E" for ER.

    (e) (Keyboard enter).

    (f) After aircraft tags, enter an "A" in the special designator.

(9) Advise West Radar of any aircraft intending to stay in closed traffic with the Tower.

(10) Coordinate the following with Local Control and/or WEST Radar (as appropriate):

    (a) Non-associated targets (primary) and intermittent data blocks.

    (b) Aircraft conducting approaches to other than the designated runway(s) in use.

    (c) Inbounds during periods when the ARTS or DBRITE are not operational.

    (d) Aircraft making multiple approaches (this may be done verbally or by placing an "A" in the special designator of the ARTS data block).

      (e) Climb out for missed approaches if other than standard.

      (f) Parallel downwind altitudes when needed

      (g) SVFR Aircraft

(11) Required coordination with local control must be effected as soon as practical, but not later than 10 miles from the runway. Communications transfer of arriving aircraft must be accomplished no later than 5 flying miles from the end of the arrival runway.

(12) Ensure that aircraft have the current ATIS information and the flight progress strip has been marked IAW the local strip marking requirements.

3. VECTORING FROM PARALLEL DOWNWINDS

a. When vectoring to final from parallel downwinds, aircraft on opposing base legs must be assigned altitudes that ensure vertical separation unless other approved separation has been applied. This ensures approved separation in the event of an overshoot or late turn-on to final.

4. VECTORING HEAVY AIRCRAFT OVER UNCONTROLLED AIRPORTS

a. When vectoring heavy aircraft over uncontrolled satellite airports, controllers should remain aware of VFR aircraft operating in these areas and provide sufficient service to maintain wake turbulence separation.

5. OPPOSITE DIRECTION PROCEDURES

a. Coordinate opposite direction arrivals and departures in accordance with National directives and this order.

b. Be aware that opposite direction operations are inherently risky and good judgment is required.

CHAPTER 12: RADAR COORDINATOR (CI)

1. **RESPONSIBILITIES**
   a. Radar Coordinator must operate IAW JO 7110.65 and must:
      (1) Establish the approach sequence for aircraft landing at CHS and advise the Tower of the sequence as required.
      (2) Assist the West Radar and East Radar with handoffs and coordination as necessary.
      (3) Advise ZJX of the type of approach and runway(s) in use when the ATIS is inoperative.
      (4) Coordinate with the appropriate position(s) during special events such as air-shows or Presidential visits.
      (5) Keep the OS/CIC informed of operational needs.
      (6) Monitor the entire operation and assist those in need.

CHAPTER 13: CENTER RADAR ARTS PROCESSING (CENRAP)

1. **PURPOSE**
   a. CENRAP was developed to provide ARTS II and ARTS III facilities with Center radar for processing by the ARTS in event of terminal radar system failure or non-availability. The HOST transmits the target reports via the HOST/ARTS interfacility line to the ARTS system for presentation on the ARTS displays. This function provides a near normal radar environment without requiring use of non-radar procedures.

2. **DEFINITIONS**
   a. CENRAP - A computer program that permits the processing of specified En Route HOST Secondary Target Radar information by the Automated Radar Terminal System (ARTS) processors and the presentation of this information on the ARTS position displays. This program is used as a backup system when the terminal radar fails and/or is out of service. There are no primary radar targets available during CENRAP and only secondary radar targets are displayed. CENRAP requires that the ARTS processor be operational.
   b. CENRAP-Plus - The process that utilizes CENRAP secondary radar information and the terminal primary radar target information to be simultaneously displayed at the ARTS displays. This process is used when only the terminal secondary beacon radar fails and/or is scheduled out-of-service.
   c. North Mark - A beacon data block sent by the HOST computer to be displayed by the ARTS on a 360 degree bearing at a locally selected radar distance (40 miles). The North mark is used to ensure correct range/azimuth orientation during periods of CENRAP.

3. **PROCEDURES**
   a. CENRAP
      (1) Separate aircraft by the following minima:
         (a) IFR
            1) 5 miles lateral (or applicable wake turbulence minima).
            2) 1000 feet vertical.
            3) Visual Separation.
         (b) VFR
            1) Standard VFR separation applies.
   *Note: Separation services will be provided within the confines of the Class C/Outer Area of CHS Airspace, or 20 NM for VFR aircraft being sequenced to land at CHS. **DO NOT USE MODE C ALTITUDE READOUT FOR VERTICAL SEPARATION PURPOSES.***
      (2) For VFR aircraft outside of 20 NM, and/or not being sequenced into CHS, provide traffic advisories, workload permitting.
      (3) Vertical separation between aircraft on passing and diverging courses must be applied IAW JO 7110.65, 5-5-7b En Route.
      (4) Visual separation standards are applied IAW JO 7110.65, 7-2-1a Terminal.
      (5) Separate aircraft from obstructions by 5 miles.
      (6) Separate aircraft from adjacent airspace IAW JO 7110.65, 5-5-10a3.
      (7) Separate aircraft from edge of the scope IAW JO 7110.65, para.5-5-11c.

(8) Unless visual separation can be applied, separate a departing aircraft from an arriving aircraft on final approach by 5 miles.

(9) Apply all appropriate wake turbulence separation criteria IAW JO 7110.65.

b. CENRAP – Plus

(1) All standard terminal primary target radar separation standards must apply when in CENRAP-PLUS except the use of automatic altitude for vertical separation purposes.

c. CERTIFICATION AND PERFORMANCE CRITERIA

(1) Perform an alignment check before using CENRAP in accordance with JO 7110.65, para.5-1-2. Position reports from targets of opportunity must be used if unable to comply with JO 7110.65, para.5-1-2.

(2) A beacon target must be displayed as a virgule (/) and a primary target, if used, displayed as a period (.). Separation minima between target symbols must be in accordance with JO 7110.65, para.5-5-2.

Note: The SYM inhibit switch on the RADS must be in the off position when using CENRAP to prevent the loss of the virgule (/).

(3) An entry must be made with an appropriate explanation in the Daily Record of Facility Operation, FAA Form 7230-4, as follows:

(a) When required to switch to or from a CENRAP operation.

(b) During periodic checks of CENRAP.

(c) During periods of CENRAP training.

d. RADAR SERVICE LIMITATIONS.

(1) MSAW, Conflict Alert and weather data are not available with CENRAP or CENRAP-Plus.

(2) Separation services are not provided for VFR aircraft.

(3) Due to the location of the Jedburg Long-range Radar site, aircraft can be tracked all the way to the ground at the Charleston International Airport, and as low as 1600' as far away as Georgetown airport, but there is a substantial non-radar area over the radar site whose diameter extends from about the Dorchester County airport to approximately 3 1/2 miles to the northwest of the Charleston AFB/Int'l. Airport.

e. ACTIVATING/DEACTIVATING CENRAP

(1) Initiate CENRAP as follows:

(a) Notify the Jacksonville Center Area Manager-In-Charge (AMIC) at (904) 549-1537, or dialing 22 on the ZJX (997) landline and request they activate CENRAP.

(b) Place the CTG "LIVE/CENRAP" switch on the CENRAP CONTROL panel; one of which is located in the REMOTE SCIP Cabinet in the ARTS equipment room, the other is mounted on the console on the southeast side of the tower cab, in the CENRAP position.

(c) Make ARTS keyboard entry:
<MULTIFUNCTION> 6, C, E, <ENTER>

(d) Notify an AF technician as necessary.

(e) Issue 2 NOTAM(s) to FSS:

1) Charleston TAR/SSR out of service.

2) Local NOTAM stating, "Center secondary radar in use. VFR separation services are not provided, except for aircraft being sequenced into Charleston International Airport within the confines of CHS Class C/Outer Area, or 20 NM.

(f) Advise pilots that the primary and/or secondary radar is out of service and CENRAP is in operation. The advisory may be omitted when provided on the ATIS and the pilot indicates having the ATIS information.

(g) Broadcast on the ATIS, the statement IAW Chapter 5, 2 b 4, of the Order.

(h) Make an "E" entry on FAA Form 7230-4, Daily Record of Facility Operation, stating: "RADAR OTS, CENRAP IN OPERATION, ACN."

(2) Terminate CENRAP as follows:

(a) Notify Jacksonville Center AMIC to terminate CENRAP.

(b) Make ARTS keyboard entry:

      <MULTIFUNCTION> 6, C, I,   <ENTER>

(c) Place the CTG "LIVE/CENRAP" switch in the LIVE position.

(d) Notify AF as necessary.

(e) Cancel the NOTAMs.

(f) Make an "E" entry on FAA Form 7230-4, stating: RADAR RTS, CENRAP TERMINATED, **ACN.**

f. ACTIVATING/DEACTIVATING CENRAP-Plus

(1) Initiate CENRAP- Plus as follows:

(a) Notify Jacksonville Center AMIC and request they activate CENRAP.

(b) Make ARTS keyboard entry:

      <MULTIFUNCTION> 6, P, E,   <ENTER>

(c) Issue 2 NOTAM to AFSS:

    1) Charleston TAR/SSR out of service.

    2) Local NOTAM stating, "Center secondary radar in use. VFR separation services are not provided, except for aircraft being sequenced into Charleston International Airport, within the confines of CHS Class C/Outer Area, or 20 NM.

(d) Advise pilots when the primary and/or secondary radar is out of service and CENRAP is in operation. The advisory may be omitted when provided on the ATIS and the pilot indicates having the ATIS information.

(e) Broadcast on the ATIS, the statement IAW Chapter 5, 2 b 4, of the Order.

(f) Notify an AF technician as necessary.

(g) Make an "E" entry on FAA Form 7230-4, stating: SECONDARY RADAR OTS, CENRAP-Plus IN OPERATION, **ACN.**

(2) Terminate CENRAP-Plus as follows:

(a) Notify Jacksonville Center AMIC to terminate CENRAP.

(b) Make ARTS entry:

(c) Place the CTG "LIVE/CENRAP" switch in the LIVE position.

(d) Notify AF as necessary.

(e) Cancel the NOTAMs.

(f) Make an "E" entry on FAA Form 7230-4, stating: RADAR RTS, CENRAP TERMINATED, ACN.

4. RESPONSIBILITIES.

a. The OS/CIC is responsible for ensuring that CENRAP procedures are initiated and terminated in accordance with this order.

b. Training and Proficiency requirements:

(1) Initial facility radar training must include a briefing of the operational steps required to transition into and out of CENRAP and of the appropriate separation standards.

(2) The ATM must ensure that training and proficiency training is accomplished IAW CHS 3120.4.

    (a) CENRAP training and proficiency must be entered into an employee's FAA Form 3120-1.

    (b) CENRAP may be operated in the CENRAP-Plus mode for proficiency and training.

CHAPTER 14: WATCH SUPERVISION

1. RESPONSIBILITIES

    a. Watch supervision may be performed by a Front Line Manager (FLM), Controller-In-Charge (CIC) or the facility manager and includes the following responsibilities:

      (1) Maintain situational awareness. (Defined as *...a continuous extraction of environmental information, integration of this information with previous knowledge to form a coherent mental picture, and the use of that picture in directing further perception and anticipating future events,- knowing what is going on around you.*)

      (2) Provide guidance and goals for the shift.

      (3) Monitor/manage traffic volume/flow.

      (4) Provide position relief.

      (5) Make training assignments.

      (6) Process leaves requests in accordance with Agency directives and FAA/NATCA contract.

      (7) Configure/monitor/report equipment status.

      (8) Ensure the Crash Phone is checked at 0900 Local.

      (9) Data collection and reporting.

      (10) Monitor Presidential aircraft and report security requirements.

      (11) Manage the operational environment with a goal toward eliminating distractions, such as:

        (a) Non-operationally-related activities or tasks that are distracting, such as controller schedule or leave bidding.

        (b) Non-operationally needed items and equipment.

        (c) Activities or tasks that are not time critical or operationally necessary.

        (d) Any time non-operationally required activities and/or tasks become distracting to the operation, watch supervision must take steps to defer or relocate these activities or tasks.

      (12) Monitor controller performance and make corrections as appropriate.

      (13) Ensure the completion of appropriate checklists.

      (14) Make position assignments, including OJT, refresher, supplemental, and remedial, as appropriate.

      (15) Coordinate with Technical Operations and adjacent facilities as appropriate for routine equipment outages and shutdowns.

      (16) Ensure that there are adequate resources available for the operation.

      (17) Act as the primary point of contact for system users, including investigating, resolving, and documenting complaints.

      (18) Maintain the Daily Record of Facility Operations log (FAA Form 7230-4.).

      (19) Print or collect the previous day's flight progress strips, OPSNET/Delay information, 7230-4 Log, and 7230-10 position logs when used and place in tray in TRACON.

      (20) Certify the sign-in/sign-out time sheet in Cru-ART.

      (21) Prepare the next day's assignment sheet (spreader).

      (22) Augment CountOps as needed

      (23) Enter OPSNET delays when required

(24) Ensure that the proper EFSTS operational configuration is scanned at the West Radar Flight Data position, reconfigured as the operation warrants.

(25) Forward the following PIREPs to the Charleston AFB (Weather), workload permitting, via the Base Ops line on the ETVS.

(a) Reports of severe or greater turbulence

(b) Reports of moderate or greater icing

(c) Reports of LLWS

(d) All other URGENT PIREPs

2. CONTROLLER-IN-CHARGE (CIC)

a. When assigned the duties of CIC, employees must provide operational oversight as directed by the FLM. In these duties they must have the same operational responsibilities and accountability as a supervisor. A CIC has the authority to provide watch supervision over the operational area with the following exceptions:

(1) Evaluating and counseling employees on performance, other than on-the-spot corrections.

(2) Recommending selections, promotions, awards, disciplinary actions, or separations.

(3) Acting as Site Coordinator for drug or alcohol testing.

(4) Approving/disapproving non-spot leave requests.

b. When there is no OSIC available, the RCIC may approve/disapprove leave and shift swap/change requests with the following exceptions:

(1) Annual leave or shift change requests for future shifts that would reduce the number of CPCs on a shift to less than six.

(2) Shift swap requests between employees not possessing equal qualifications.

c. When both a TCIC/TOS and RCIC/OS are staffed, the RCIC/OS must be the OSIC.

3. WATCH CHECKLIST

a. A watch checklist has been established which lists all required action items/checks necessary to ensure effective facility operation. The FLM or CIC of each shift must ensure that all items listed on the watch checklist are completed or checked in a timely manner. Upon completion, enter "WCLC" in the daily log (7230-4).

b. The checklist should be completed as soon as feasible after the start of each watch.

c. The watch checklist items are:

(1) Check NOTAMS and ensure all information contained in the IDS is complete and accurate.

(2) Ensure proper configuration of ARTS IIE and ASR9 when operational.

(3) Check lighting panel to ensure proper setting on runway lights according to weather conditions (TCIC/TOS).

(4) Check ILS monitor panels, including CAT II equipment (TCIC/TOS).

(5) Ensure light guns are checked. (TCIC/TOS).

(6) Ensure the code select box is set properly to:

(a) 0100

(b) 0200

(c) 0300

(d) 0400

(e) 1200

(f) 1100

        (g) 4000

        (h) 2000

        (i) 1000

        (j) 4500

    (7) Verify Weather Systems Processor (WSP) equipment is operating normally

    (8) Ensure all transmitters and receivers are on main on even-numbered dates and standby on odd-numbered dates

    (9) Visually inspect and aurally test the MSAW system.

    (10) Ensure proper staffing and check leave requests.

    (11) Crosscheck the DASI to the ASOS altimeter and ensure any "correction factor" is posted in the IDS4 SIA page.

    (12) Ensure the EFSTS is in the proper configuration.

    (13) **Sunday ONLY**: Conduct two-way ground-to-air check 121.5 and 243.0 and test the Portable Emergency Transmitter **(PET)**.

    (14) **Tuesday ONLY**: Run the Tower sprinkler system.

4. POSITION ASSIGNMENTS FOR NEWLY CERTIFIED CONTROLLERS

    a. Newly position certified controllers must not be assigned to combined positions for a minimum of 20 hours after certification, i.e. all tower positions combined or all TRACON positions combined to WR.

    b. Regularly combined positions should not be split to accommodate this directive.

5. STAFFING

    a. In the event that staffing falls to a level where the TRACON and Tower operation cannot be maintained, the preferred remaining operation will be ATC LIMITED. Normally this will be VFR Tower operations only. Follow the steps in the Contingency Plan.