Functional Requirements

# Functional

1. APC must maintain safe separation between aircrafts
2. APC must guide aircraft to the runway
3. APC must keep relevant aircraft information in Electronic Flight Progress strips up to date.
4. APC must provide weather reports to the approaching aircrafts.
5. Flight Progress Strip (FPS) must be converted to (Electronic Flight Progress Strip) EFPS.
6. Primary mode of communication must be Command Messaging System(CMS).
7. CMS must use predefined message as a means of communication.
8. Radio and landlines would be used as a secondary mode of communications.
9. EFPS must be maintained by AIC and APC
10. EFPS must contain aircraft type, call sign, altitude and gate number
11. EFPS for inbound aircraft must contain Expected Time of Arrival (ETA) and Actual Time of Arrival(ATA)
12. EFPS for outbound aircraft must contain Expected Time of Departure (ETD) and Actual Time of Departure (ATD) and the rout information.
13. GMC must allocate aircraft to gates.
14. GMC must guide aircrafts to taxi.
15. EFPS under AIC system will be classified into *pending, active and archived.*
16. EFPS under APC system will be classified into *pending, active, archived, and holding.*
17. ATC must have Flight Plan Logging (FPL).
18. The names and license number of the pilots should be validated.
19. FPDB must store all the completed FP.
20. EFPS must be generated from FP and send to AIC.
21. AIC and GMC should collaborate together for an aircraft to depart.
22. When an aircraft is airborne, AIC must record the ATD on the EFPS and instruct the pilot to contact ATCC.
23. AIC must send a copy of EFPS to the ATCC and archive the EFPS.
24. APC must take control of an aircraft inside the control zone.
25. APC must provide directional information to aircraft.
26. APC must provide aircraft with Weather Report(WR).
27. AIC must provide aircraft with gate number before touchdown.
28. APC must log altitude and airspeed instruction through the EFPS
29. AIC takes over control from APC when aircraft reaches final approach.
30. AIC must get the gate number from GMC.
31. AIC must log the gate number to EFPS.
32. AIC must advise pilots of their allocated gate.
33. AIC must archive the EFPS after completion.
34. WR must include wind speed, wind direction and visibility

# Non-Functional

* Secondary mode of communication should be radio for aircraft to controller and landline for controller to controller.
* AIC and APC are presented with EFPS information via touch screen display
* E-FPS information are change via scribe
* FP should be archived to Flight Plan Database(FPDB)
* Pilot information must be validated by Pilot Database (PDB)
* WR should be sent to APC every 15 minutes
* GMC should communicate with AIC for aircraft taxi
* AIC must record the Actual Time of Departure(ATD) on the EFPS
* FPL system will allow pilots to submit FP electronically
* AIC must record the Actual Time of Arrival(ATA) on the EFPS
* AIC should send a copy of EFPS to ATCC before archiving