
# The Johnson Space Center Radio Control Club (JSCRCC) Handbook

Febraury 11, 2016

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# I. GENERAL INFORMATION

## CHARTER

The Johnson Space Center Radio Controlled Club (JSCRCC) is chartered by the Academy of Model Aeronautics (AMA charter club # 617). All Club members must be AMA members. The club is open to the general public, not just Johnson Space Center contractors and employees. The objectives of the JSCRCC are to promote the building and flying of Radio Controlled (RC) model aircraft in a safe and friendly environment. Ground and flight training are provided to maximize enjoyment and to insure new flyers can operate their models with minimum risk to their equipment, facilities, fellow club members and guests.

## MEETINGS

Club meetings are held at the Clear Lake Park building off of NASA Rd 1. The Clear Lake Park building is located east of Space Center Blvd., across from Landolt Pavilion, at the intersection of NASA Rd 1 and Clear Lake Park Rd. Club meetings are held on the second Thursday of each month. The meetings start at 7:00 PM and are generally over by 9:00 PM. One special event is held in lieu of the regular monthly meeting on the second Thursday in December (Christmas Party). All interested parties are welcome to come to the meetings. A monthly newsletter is issued to each member providing news, information on upcoming events, and meeting minutes including Model of the Month award.

## FLYING SITE

One of the best features of this club is the large tract of land available for our use. We are located on approximately 300-500 acres of open land inside NASA. The field is large enough to have more than one active flight line – allowing fixed wing aircraft, helicopters and gliders to have their own airspace in designated areas. The Johnson Space Center and the JSC RCC entered into a Space Act Agreement that defines the responsibilities of each party. This agreement can be found on the JSCRCC webpage (www.jscrcc.com) and requires that each member has a signed participation agreement on file.

To get to the site from Hwy. I-45 southbound take NASA Rd 1 East. Take a left at Saturn Drive and then a right onto the main gate into NASA, 2nd Street. Stop at the guard house showing your club field pass and a picture ID. When cleared for entrance drive straight and turn left immediately after passing building 14 (first building you come to on the left). This is the first street you come to that goes along the side of building 14. Behind Building 14 you will see a two lane concrete road that goes to the flying field. Stop at the stop sign and wait to be waived in by a member (if present). Do not drive in unless waived in when planes are flying. A map showing the location of the flying site can be found in Figure 1.

Figure 1. Location of Flying Site

Due to security restrictions at the Johnson Space Center, access to the site requires current government issued photo identification card (driver's license, school picture I.D. etc.) and placed on the security list to use the flying field. Also, member's names must be submitted to and cleared by NASA security, a duty performed by the Membership Chairman which usually takes two weeks to accomplish. Access to the NASA will be denied if members (or guests) names are not on the security list. A friend or visitors of members can be placed on the JSC RCC security list. Please allow two weeks advance notice to process guest passes through NASA security.

JSCRCC offers three classes of members. They are Student, Pilot and Instructor. Qualifications of each are discussed later in the handbook.

**DUES**

The schedule of annual club dues is outlined in detail in the club's by-laws. New member dues are $55.00/year and renewal is $35.00/year. Dues for renewal are payable to the Membership Chairman by the 31st of January or when specified by the membership application/renewal form. See membership application form (Appendix A) or contact the Membership Chairman for details.

**CLUB WEB SITE**

The JSCRCC maintains a web site for the benefit of its club members and is the official record of the club. General club information, news, pictures of members and their aircraft, and copies of past newsletters with official minutes can be found. Also available are an RC forum and current weather conditions . Subscribing to the emailed monthly newsletter is accomplished through the web site, http://www.jscrcc.com

**JSCRCC HISTORY**

The JSCRCC club was formed in 1964. The initial members were mostly engineers involved with the Mercury/Apollo/Gemini programs. This fledging group was able to secure shared use of the antenna test range where we have remained to this day. Some of the early newsletters are on ditto sheets typed on a manual typewriter dating back to the late 1960s. The club started with around 20 members and grew to 160 in 1990. JSCRCC currently has an average membership of 100 members.

It is fortunate that our club through the years has retained documentation on some of the outstanding accomplishments of members who interfaced with NASA programs such as high lift over drag flying bodies, and various acrobatic designs. It was one of the original club members who built the first conceptual R/C model of the Shuttle Orbiter747 to demonstrate the possibility of returning the Orbiter from California to Florida by using a Boeing 747 to piggyback the Orbiter. NASA liked the idea and the rest is history.

Some of the early model of the month submissions were the Southern R/C Atlas, RCM Trainer, Honker Bipe, and VECO Cherokee Babe. The field started out having both free flight and RC aircraft. It was also very helpful in those early days to be knowledgeable about radios—as most control equipment was largely homemade in the early 1960's.

# II. CONSTITUTION

Article 1. The name of this organization shall be "Johnson Space Center Radio Control Club", abbreviated as the JSCRCC. JSCRCC is in a contractual agreement with the Johnson Space Center via the Space Act Agreement 16475.

Article 2. The purpose of this organization is to provide a common meeting ground for hobbyists interested in any phase of radio controlled model airplanes or helicopters; to enforce and maintain conformance with regulations governing radio control operation and techniques; to increase knowledge of the art of radio control by mutual exchange of information and ideas and to stimulate interest in radio control flying.

Article 3. The Officers of this organization shall consist of a President, a Vice President, a Secretary, and a Treasurer, who shall serve for a period of one year, or until a successor is elected. The President must have been a club member in good standing for a minimum of one year. The officers shall be elected by secret ballot annually by the members of the organization. In addition, the club will have a Safety Officer and a Membership Chairman appointed by the President with concurrence from the other officers.

Article 4 The control and management of this organization shall be vested in the membership, unless otherwise provided by this constitution or the by-laws, and is subject to the regulations governing use of the flying site at JSC.

Article 5 The Constitution and By-Laws may be revised or amended by a 2/3 majority vote of those present at any regular meeting provided that the proposed revision(s) or amendment(s) shall have been submitted to the membership through the Club newsletter prior to the meeting.

Article 6 The privilege of making motions, debating, and voting shall be limited to members of the organization in good standing.

# III. BY LAWS

Article 1. The membership of this organization shall be composed of hobbyists interested in the radio control of model airplanes and helicopters. Membership is attained by submitting a completed membship application with dues, participation agreement, and proof of AMA membership.

Article 2. The club's fiscal year begins January 1st and ends December 31st.

New Members: The first year dues for a senior new member (18 years of age or older) shall be $55.00. New members joining the club in the months of November and December shall be credited with membership for the following year without additional charge. A membership lapse from the club for more than two years is considered a new member. The first year dues for junior members (under 18 years of age or a full time student) shall be waived.

Renewals: Senior member renewing shall pay $35.00. Dues for junior members (under 18 years of age or a full time student) are waived

Family Membership: In the case of multiple club membership in a single family, the dues are same as for new members and renewals.

Dues are waived for club officers, committee chair, and the newsletter editor.

Upon payment of club dues and AMA verification the member will be will be placed on the JSC RCC security list for entry to the field.

Article 3. Section 1. Only members in good standing shall have the right to vote in any general or special election. A member is considerd in good standing when JSCRCC dues are current and paid in full, current AMA member, and have no current disciplinary or safety violations.

Section 2. Election of Club officers: Nomination for the positions of President, Vice-President, Secretary, and Treasurer will be accepted at the regular club meeting in October and will be closed at the end of that meeting.

Ballot forms with the nominations for the various positions will be forwarded to the membership via the November club newsletter. These ballot forms will have the return address of a club member that has been appointed to adjudicate the election process.

Voting: Each Club member in good standing will be allowed one vote for each of the positions on the ballot form. The ballot form may be mailed to the adjudicator or handed in at the November Club meeting. Deadline for ballots to reach the adjudicator is the refreshment break of the November meeting.

Results of the election will be announced before the end of the November club meeting and in the following newsletter.

Elected Club Officers: Newly elected club officers will serve a term of office from January 1st to December 31st.

Section 3. In case of a vacancy occurring in the office of President, the Vice-President will fill the vacancy for the remainder of the existing term.

Section 4. In the case of a vacancy in the office of Vice President, Secretary, or Treasurer, a replacement will be elected at the next scheduled club meeting.

Article 4. Section 1. It shall be the duty of the President to preside at all regular meetings of this organization, preserve order, enforce the Constitution and By-Laws, and exercise supervision of its affairs. The president shall decide all questions of procedure and order for the organization, shall appoint all committees, shall see that all officers and committees properly respond to and perform all duties that may be placed upon them.

Section 2. It shall be the duty of the Vice-President to assist the president in the discharge of his/her duties and to occupy the chair in his/her absence. He or she shall direct, under the supervision of the president, the internal organization and operation of the club, e.g., serve as Program Chairman.

Section 3. It shall be the duty of the Secretary of this organization to keep a true and correct record of all the proceedings of the Club, receive all communications, conduct all correspondence, have charge of all Club records, and keep the minutes of all meetings. The official address of the JSC RCC is P.O. Box 58812, Houston, Tx, 77258.

Section 4. It shall be the duty of the Treasurer to handle all financial matters of the Club and report the Finances of the Club at each regular meeting. He shall act and be a member of all committees of this Club that may be required to receive or disburse money. At the January meeting the Treasurer shall provide a year end statement.

Article 5. The Club shall meet on the second Thursday of each month at 7:00 PM. Changes to meeting location, time, or day may be implemented by the club president to accommodate holidays, conflicts, or other emergencies. In such an event club members are to be notified as soon as possible via email or telephone as appropriate.

Article 6. It shall be the responsibility of all officers upon accepting the position to which they were elected to discharge their duties as outlined in these by-laws. In the event any officer does not (at the discretion of the membership) fulfill his/her duties, the membership shall have the right at any time to elect a replacement.

Article 7. It shall be the responsibility of each member to fly their aircraft in a safe and orderly manner in accordance with all applicable regulations. Members shall have an AMA license/membership card with them at all times when flying at the JSC flying site.

Article 8. All student pilots will select an instructor (one can be found through one of the club officers or from the list published in the newsletter) and undertake the Pilot Certification Program described in Appendix C. After passing the Pilot Certification test and Solo Flight from his/her instructor the student will be classified as a Pilot and the club databse will be updated with pilot designation.

All other senior and junior members who are neither an instructor nor a pilot shall be classified as Students and subject to the provisions and restrictions of this handbook.

Article 9. Pilots wishing to become a flight instructors must undertake a flight review of an existing insructor. Final approval will be by the Chief Flight Instructor.

Article 10. A Chief Flight Instructor will be selected by majority vote of the current flight instructors with approval of the President.

Article 11. Section 1 A member may be removed from active membership for violations of JSCRCC by-laws or field rules. This process of removal shall begin with a written complaint made to any Board of Director by any member in good standing. The member at risk of removal (or the member's representative) shall be heard in full at next Board of Directors meeting. The Board of Directors shall judge the merits of the complaint and make a recommendation to the active membership at next business meeting with a quorum of 15% of membership present as follows: If the decision is not to remove the member, a summary of the compliant and the rationale for non- removal shall be presented by a Board member. If the decision is to remove the member (for a specified period determined by the Board), the member or his/her representative shall be heard in full if he/she so chooses to be heard, removal will be affected by a two-thirds majority vote of eligible members attending.

Section 2 A member may be re-instated after a period of time (specified by the Board as part of their judgement) by appealing in writing to the Board of Directors. A recommendation to re-instate by the Board shall be presented to the members attending a business meeting with members voting on re-instating requiring a 2/3 majority vote of members in attendance.

# IV. SAFETY RULES

Retaining our privilege to fly at the JSC Antenna Range site depends on every member taking personal interest in following and enforcing the AMA National Safety Codes , JSCRCC field safety and JSCRCC field procedures. Read them, memorize them, and follow them! Any JSCRCC member who does not comply with or follow the safety procedures and rules stated herein will be subject to having his/her club privileges suspended, or club membership terminated, depending on severity or reoccurrence of the infraction. Safetey rule violations shall be submitted in writing to the Safety Officer and/or board of directors. This must include at a minimum the persons name, witnesses, and violation.

SAFETY RULES

1. All AMA National Model Aircraft Safety Codes are safety rules at JSCRCC.

2. An FM transmitter can only be turned on if the pilot has obtained the proper JSCRCC frequency pin from the frequency tree, exchanging the frequency pin on the tree with his/her AMA card and attached the pin to the transmitter antenna. When finished using your transmitter, switch off transmitter, remove your AMA card from frequency tree and replace the frequency pin in its proper place. Transmitters on 2.4 Ghz do not require frequency pins, however, an AMA card should still be displayed.

3. Pilots are encouraged to utilize assistance from other modelers in holding aircraft during engine startup. When human assistance is not available, mechanical hold down devices (several provided by the club are available at the field) can be used.

4. Maiden flights of a new or repaired aircraft shall be announced to the pilots present.

5. All low altitude high speed passes shall be performed at the far edge of the paved runway, outside the far end solid white line.

6. Taxing, Take-off & Landing

    a) Three major Directional Flight Lines (DFL) are provided to accommodate the wind direction (See Figure 2).

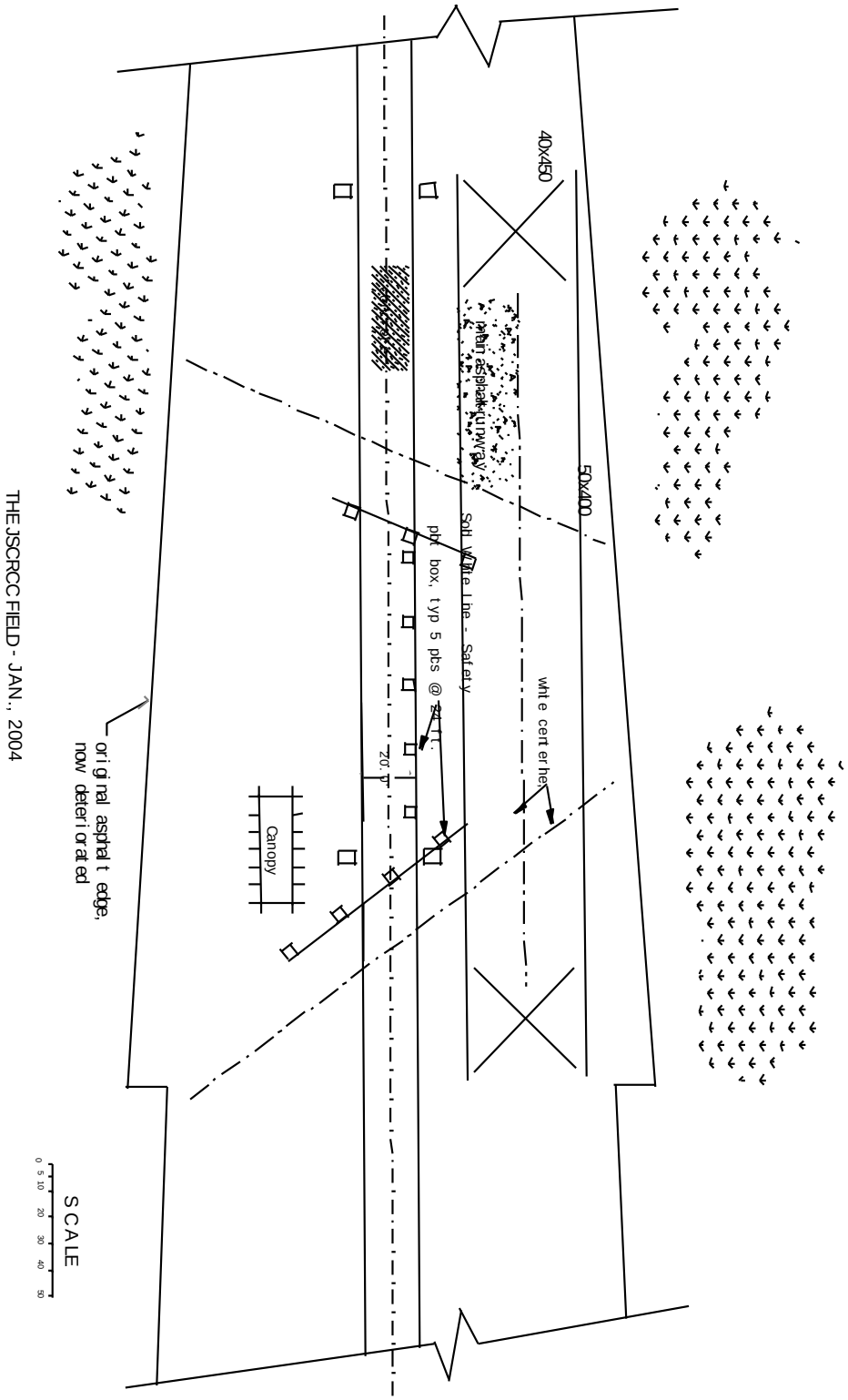


Figure 2. Field Layout

b) Depending upon the direction of the wind, the "Current Flying Session" (CFS) flight line will be determined by the flyers present on the field.

c) No taxing out of the pit area under the aircraft's own power. Planes should be hand controlled until outside the pit area. NO TAKE OFFs FROM THE PIT AREA!

d) All powered take-offs and landings will be done within the CFS flight line areas.

e) Pilots will fly from within the pilot boxes behind the designated " Safety Line". Multi-Rotor and helicopter pilots if flying alone at CFS or with only multi-rotor or helicopter pilots by mutal agreement can push safety line and pilot boxes East onto runway up to far edge of pavement.

f.) Special rules for Alternate CFS:

Hand launched aircraft may be launched and landed in the " Alternate CFS "(grass area west of pavement). Takeoffs shall be away from pavement, and all flying including landings shall take place at least 25 feet out from from pavement, landings will parallel to pavement. Low altitude high speed passes will be at least 75 feet out and parrallel to pavement. No intentional flying over concrete, parking, spectator or pits. Note: no pilot boxes are provided for alternate CFS, pilots will stand and fly from edge of concrete, which is the "safety line" for this CFS.

Helicopters and Multi Rotors may use "Alternate CFS" as per above and: takeoffs and landings may be from edge of concrete provided this area (helipad) is 25 feet north or south of last parked vehicle or canopy.

g) Helicopter and multi rotor blades will be engaged only on the runway or designated helipad - not in pit area or taxi way.

7. Location of Pit & Spectator Areas

a) The "PIT" area is where all pilots and equipment are kept, including field boxes, planes, helpers, coolers, chairs, etc. deemed necessary by a pilot (see Figure 2).

b) If a plane's engine quits on the runway just prior to an attempted take-off, the pilot and/or helper should make every attempt to clear the plane from the runway quickly.

c) The "Spectator" area is located behind the Pit area for a distance of 15 feet and running parallel to the Pit area. Visitors and spectators should be directed to this area as quickly as possible to maximize the safety of the people and minimize the disruption of the flying activities.

d) When approaching the field from the parking area behind Bldg. 14, vehicles will travel, without stopping, at a speed less than 20 mph, on the same side of the field as the airplane pits.

8. When the JSCRC Club and the NASA/Houston National Rocket Club are using the JSC antenna range at the same time, the following safety rules will be followed:

a) Everyone will proceed with caution from the parking area behind Bldg. 14 while observing aircraft and rocket activities and following procedures given in 7 d above.

b) People on foot may proceed with caution, walking on the airplane pit side of the field, avoiding the airplane landing strip.

c) Vehicles returning from the rocket launch area at the end of the field will follow the reverse procedure given in 7 d.

d) While vehicles are traversing the flight line area, airplane pilots will fly their planes in a pattern outside the runway area, and will not, under any circumstances, over fly the runway. In the event of loss of power, every effort shall be made to land away from the vehiclular traffic.

e) An attempt will be made by each organization to sound an audible alert in the event an out-of-control model situation occurs.

9. All electric powered aircraft shall not be connected to battery power in the pit or spectator areas. After flying disconnect motor battery before entering the pit or spectator areas.

10. All LiPo and similar batteries shall be charged in an appropriate safety container.

11. Cell phone capability must be present during all flight sessions for emergencies. The emergency phone number is 281-483-3333.

12. Every reasonable effort shall be made to locate and retrieve Lipo batteries dislodged during flight.

# V. JSCRCC FIELD PROCEDURES

Due to our flying field being on government property, several procedures are unique to the club and must be observed at all times as listed below.

1. Any time the Antenna Range is in use by NASA the field is closed to all R/C flying. Club flying hours are after 4 pm on weekdays and dawn to dusk on weekends.

2. All JSCRCC members should be prepared to show their photo ID when requested by NASA Security Personnel. Members must also be on Security's check list to ensure that members will be allowed on site at any time.

3. Club members will drive with caution to the field parking area at the edge of the pavement near the shade canopy.

4. The only people with permission to fly on the JSC flying site (Building 14 Antenna Range) are JSCRCC current Club members, and guests with a current AMA license/membership card accompanied by a JSC or JSCRCC Club member. No JSCRCC Club member may fly without his/her AMA membership card.

5. Keep the flying site and parking areas clean. Every member must do their part, even if we didn't have anything to do with creating the litter on the field. Pick it up and take the litter home for proper disposal in your trash can.

6. All engines having a displacement of more than 0.10 cubic inches must be fitted with an effective silencing device when being operated at the flying site. Straight extensions or stacks are not allowed.

7. No pilot shall fly while under the influence of alcohol or illegal substances. NASA regulations prohibit entering or leaving JSC property, or operating a motor vehicle while under the influence of alcohol or illegal drugs.

8. Club database will be updated by the Club Membership Chairman and will be labeled as "R/C PILOT", "INSTRUCTOR", or "STUDENT". All new club members will be considered a student until it can be verified that he/she meets certain flying standards per the pilot certification procedures given in Appendix C.

9. All "STUDENT" pilots shall fly with an instructor present.

10. -All engine break ins shall be performed West of the canopy area at a distance sufficient to preclude engine noise and exhaust from interfering with normal operations in the canopy area.

# Appendix A
# JSCRCC Registration Form

( ) RENEWAL ( ) NEW MEMBER DATE:_____

NAME:_____

ADDRESS:_____ BIRTHDATE:_____

CITY: _____ STATE:_____ ZIP:_____

HOME PHONE: (____)_____ BUS. PHONE: (____)_____

CELL PHONE: (____)_____ US CITIZEN (____) YES (____) NO

AMA #:_____ ( ) STUDENT ( ) PILOT ( ) INSTRUCTOR

Email address is used for communication strictly for JSCRCC

EMAIL ADDRESS _____

GUEST _____ GUEST _____
US CITIZEN (____) YES (____) NO US CITIZEN (____) YES (____) NO

GUEST _____ GUEST _____
US CITIZEN (____) YES (____) NO US CITIZEN (____) YES (____) NO

GUEST _____ GUEST _____
US CITIZEN (____) YES (____) NO US CITIZEN (____) YES (____) NO

GUEST _____ GUEST _____
US CITIZEN (____) YES (____) NO US CITIZEN (____) YES (____) NO

| | | | |
|---|---|---|---|
| DUES: | ADULT/FAMILY RENEWAL | $35.00 | SEND COMPLETED FORM TO: |
| | ADULT/FAMILY NEW MEMBERSHIP | $55.00 | HERMAN BURTON |
| | (Name tag included with new membership) | | 2918 Sea Ledge Dr. |
| | JUNIOR (under 18) RENEWAL | Waived | Seabrook, TX 77586 |
| | JUNIOR (under 18) NEW MEMBERSHIP | Waived | PHONE # 281-474-7133) |
| | OPTIONAL JSCRCC NAME TAG | $10.00 | |

NAME ON NAMETAG: _____

= = = = = = = = = = = = = = = = = = = = Reserved for Membership Chair = = = = = = = = = = = = = = = = = = = =

AMOUNT REMITTED:_____ AMA CHECKED:_____

DATE DATABASE UPDATED_____

# APPENDIX B
# PARTICIPANT ACKNOWLEDGMENT

**Section I – PARTICIPANT INFORMATION**

## Full Name:

Mailing address:

**Section II – LIABILITY**

Johnson Space Center Radio Control Club located at P.O. Box 580194, Houston, TX 77258 ["JSCRCC"] has signed Space Act Agreement No. 16475 with the National Aeronautics and Space Administration (NASA) Johnson Space Center (JSC) for access to JSC property, primarily the field located behind JSC Building 14 also known as the JSC Antenna Range, for designing, building, and flying radio controlled model aircraft. Pursuant to that agreement, the JSCRCC has agreed to comply with all applicable laws and regulations and NASA JSC security and safety policies and guidelines.

Pursuant to this Agreement, the JSCRCC has waived claims against NASA, NASA employees, NASA's Related Entities, and NASA's related entity employees for injury or death or damage to or loss of property arising from or related to activities conducted under the above referenced Space Act Agreement, arising through negligence or otherwise, except in the case of willful misconduct. The JSCRCC has also extended this cross-waiver to its Related Entities.

I am a member of the JSCRCC and the Academy of Model Aeronautics (AMA) and wish to participate in the JSCRCC activities primarily conducted in the field behind JSC building 14. I agree that as a condition of my participation, the above described liability waiver will apply to me personally and to my participation in all related activities.

**I understand that by agreeing to the above described waiver, I am waiving all claims against NASA**, its employees, its related entities, (including, but not limited to, contractors and subcontractors at any tier, grantees, investigators, customers, users, and their contractors and subcontractors, at any tier) and employees of their related entities for any injury to, or death of myself, or for damage to, or loss of, my personal property, arising from or related to activities conducted under this Agreement, whether such injury, death, damage, or loss arises through negligence or otherwise, except in the case of willful misconduct.

I further agree, upon receiving access to the NASA JSC facility, to comply with all NASA security and safety policies and guidelines including, but not limited to, standards on badging, credentials, and facility and IT system/application access.

_____ _____

Participant Signature Date

IF PARTICIPANT IS A MINOR:

_____ _____

Signature of Participant's Parent or Legal Guardian Date

**Section IV – JSCRCC CERTIFICATION**

I certify that _____ is a JSCRCC member in good standing.

_____ _____

JSCRCC Certifying Official Signature Date

_____

Title

# Appendix C
# Pilot Certification

The goal of the JSCRCC is to teach the new R/C flyer to fly safely with a minimum of risk to his airplane, facilities, and guests. In order to meet this end a flight-training program has been developed. While in the program, a student will be taught not only the basics of safe, controlled flying but related subjects including battery maintenance, safe construction practices, basic engine tuning and care, frequency control and flight line courtesy skills.

All instruction is supplied by JSCRCC certified instructors. Each student's airplane will be inspected by the instructor to insure that it is airworthy. Engine tuning and care will be reviewed along with airframe care. The student will learn an overview of the ownership of model aircraft beyond the skills needed to fly.

A list of current JSCRCC instructors is published monthly in the club newsletter. . JSCRCC members must be certified pilots in order to fly without an instructor present.

Beginning flyers are encouraged to talk to instructors prior to purchasing their first trainer model, engine and radio. Many good trainer type aircraft are available in both kit, almost ready to fly (ARF) and essentially ready to fly (RTF) forms. All of them share some common characteristics which enable slow and forgiving flights. Good used trainers are often available through club members or hobby shops. These are often a way to get in the air quickly, and possibly at a cost savings. Take an experienced flyer with you when purchasing used gear. It is sold without warranty and it is the buyer's responsibility to assure that the plane, radio or engine is in serviceable condition and, in the case of radios, currently legal and acceptable at your field.

Buddy box training methods are required for instruction at JSCRCC. This system permits the student and instructor to each hold a transmitter, avoiding passing the transmitter back and forth. This also allows the instructor to take over and save a plane from a bad situation in far less time than if the student had to first decide to hand the transmitter over, giving the instructor far too little time and altitude to save the airplane. Airtronics, JR and Futaba offer transmitters with the buddy box connector. Many instructors have buddy boxes. Check to see which one has the type that is compatible with your equipment when choosing an instructor.

Finally, SOLO when your instructor believes you are ready. It is the sole responsibility of the instructor to establish your skills to solo.

## First Trip to the Flying Field

Once the student has a completed aircraft, the instructor will carefully inspect it before the first flight. Other subjects will also be reviewed before and after the first flight session. These subjects are flight patterns, transmitter impound, frequency control, engine starting and tuning and what to expect on the first flight. A post flight review of procedures and finally a review of battery maintenance.

The inspection will be a thorough one. The instructor will use the following check list items before the initial flight, even if the airplane has been flown elsewhere in the past. The sole purpose of these inspections is to increase the student's chances of success without airplane troubles. Review the "First Flight Pre-Flight Inspection" for added assistance in assuring a successful first flight. Remember, if you work on your airplane between flight sessions it should be inspected by the instructor to assure that everything is in order before the next flight.

## First Flight Procedures

Before flight training can begin the instructor and the student will review flight procedures for the field. The AMA Safety Code must be reviewed and compliance assured. Transmitter procedures, flight stations and methods will be explained, and field safety rules reviewed. Airplane restraints are demonstrated. Flight patterns and procedures are explained. Landing approaches are explained, including the downwind, base and final legs of the pattern. The events that occur during a landing are explained. Emergency procedures, including in-flight airplane trouble and loss of power (dead stick), as well as right of way are explained. The instructor will show how to declare take-off, landing and person “on the runway”, when at the flight station. It is important to assure that everyone hears you when you call your intentions.

A person on the runway has the right of way, but should not go onto the runway without declaring his or her intentions and clearing his need to be on the runway with all of the pilots currently flying. He should clear his airplane from the runway as promptly as possible and declare that he is clear of the runway. Landing priority is given to dead stick aircraft first. Pilots should also give immediate runway access to any aircraft that is having in-flight trouble.

When the student is ready for the start of the first flight, advise other pilots that a "maiden flight test" is occurring. It is recommended that all other flight operations be discontinued prior to the taking of a maiden flight of an aircraft. AMA rules prohibit maiden flights in the presence of spectators (unless you are assisted with an experienced pilot), so this flight should be done on a day when the field is not busy.

The airplane, field box and transmitters (master and buddy box) are taken to an available flight station, remembering that only four aircraft should be in the air at one time. Both transmitters need to be checked and the control, trim and travel direction of all servos verified that they match. The wind direction is observed and the flight pattern for the day is explained, giving the student the proper takeoff direction information for future reference. The details of the first flight experience should be explained, including the instructor's need to give and take control of the aircraft. An instructor will always do everything in his or her power to save the student's plane, as long as it doesn't endanger someone.

The instructor assists the student as necessary in fueling, restraining the aircraft, starting and tuning the engine. Each item is explained as to the reasoning and methods used. This builds understanding of the process for future knowledge of the student. The controls are given a final check for movement and direction. When the engine has warmed up, the intent to takeoff is declared to the other pilots. Once

the airfield is cleared, the airplane should be taxi tested before attempting its first flight. Once all on ground testing is completed, the plane is taxied to its take off position and taken off by the instructor.

The instructor will bring the aircraft to a good altitude and attitude for flight-testing and to determine that all is in good order. The control trims will be adjusted as needed to assure level flight (needs to be on both transmitters). After the aircraft has been tested and the instructor is familiar with its characteristics, the instructor may need to land the model to allow for adjustments. If this is not required, the student may fly at this point, keeping in mind the amount of fuel remaining due to the taxi and flight-testing. Note: A flight timer is recommended to help in keeping track of the fuel used.

At the end of the first flight session, the student should be supervised for impound procedures, de-fueling and aircraft cleanup. The plane should be inspected after the wing is removed; looking for any parts that may have loosened or failed. Any needed changes or adjustments should be discussed. Additional flights may be taken, depending on the readiness of the student and the aircraft.

At the end of the flight day, the status of the student's progress should be discussed. Each aspect of things that went well and things that need to be improved on should be noted. The student should be told how to recharge the batteries of the radio system and what to look for on the aircraft overall in preparation for the next flying session.

Once all areas of the first flight have been reviewed with the student and the Daily Flight Checklist and the Pre-Flight Checklist have been discussed the student is ready to begin normal flight instruction. Students are required to master several basic maneuvers as listed in the Final Exam and Solo Flight form in order to obtain a “Pilot Certification”.

# Final Exam and Solo Flight

At this point the student has completed all required instruction and may make his/her solo flight when ready. The instructor or another instructor may administer the solo flight exam.

The test has two parts. The first is an informal discussion where the student explains the AMA Safety Code, club safety rules and procedures to the instructor. The second part of the exam is a flight test. A buddy box **may not** be used during this test. If the student requires assistance he/she is not passed but may retest again when ready, but may not retest sooner than the following day.

1. Understanding of the AMA Safety Code, JSCRCC safety rules, and JSC field procedures _____

2. Student pilot flight test demonstrating proficiency in all associated ground procedures, taxi out, takeoff, level flight, landing pattern, a controlled on runway landing and taxi back to the flight station area and in such maneuvers as the instructor deems necessary to insure safe and proper operation of his/her aircraft. _____

Upon satisfactory completion of these tests, the student is a certified pilot and may fly without an instructor. A copy of this form must be submitted to the club's Treasurer in order to obtain a "Pilot's" designation in the database.

New Pilot: _____ (name)

Approved as a certified RC pilot. Date _____

_____(Sign)
Instructor

I understand the rights and responsibilities of being a pilot in the Johnson Space Center RC Club and agree to abide by the AMA and Club Rules.

_____(Sign)
New Pilot

# Appendix D
# Flight Inspections

## First Flight Pre-flight Inspection

The first flight of any new model must be given added attention to insure the aircraft is flight worthy and imposes minimal risk to the pilot, spectators and adjacent facilities.

1. Overall appearance should suggest that the model is sound and flight-worthy. Covering should be secure and without holes, tears and other structural flaws.

2. Check all hinges by pulling firmly on all control surfaces. If one tears out here, rest assured that a crash was averted. Are the hinge gaps tight?

3. Is plane properly balanced according to the plans? Is it excessively heavy or, suspiciously light?

4. Are the engine, prop, spinner, muffler and wing securely mounted? Does the thrust angle of the engine appear correct? (No major misalignment) Has the prop been balanced?

5. Has the fuel system been leak tested and hooked up correctly? Is the tank well padded?

6. Is the radio installed correctly? The power switch must be on the opposite side of the plane from the exhaust. Batteries and receivers must be secured such that they cannot move in flight and must be wrapped in foam for vibration isolation. Batteries and receivers may be wrapped in plastic bags to protect them from fuel. Finally, a range check must be done.

7. Servos and their mounting rails must be secure. Servos must be mounted in rubber grommets with proper hardware. Check that the servo arm screw is in place and snug. Check pushrod-to-servo arm attachments. The JSCRCC recommends that EZ type connectors with plastic retainers be used only for throttles and other non-critical applications. If tube within tube pushrods is used, are they well secured at both ends, and free of binding? Listen to the servos to determine if they are working smoothly. Measure control surface throws and compare to the plan specifications if they are available. Wiggle each control surface while the radio is on to assure that no excessive play exists.

8. Is the landing gear securely mounted and not bent or not correctly aligned? Do the wheels roll easily? Is the steering free and positive? Does the airplane roll straight?

9. Are the batteries fully charged?

10. If sparkplug ignition is installed, is a kill switch installed and functional?

11. Is the wing free of warps? Is the center section properly reinforced?

12. Are the fuselage and its attachments straight? Is the engine area fuel-proofed?

13. The prop spinner must not touch the prop blades. Damaged props must be discarded. Repairs are not safe at the high speeds of model engines.

14. Engine, muffler, and glow plug tight?

15. After repair or modification, the checklist should be gone through again, with particular attention to the areas that were worked on or repaired.

## Pre-Flight Checklist:

### (Recommended prior to each flight)

***Before going to the Flight-Line***- Prior to each flight verify the following:

- Aircraft has been fueled
- Fuel lines are in correct locations (tank pressure, carburetor, etc.)
- Receiver battery voltage has been verified
- Transmitter has been correctly checked out of the impound, with frequency pin

***At the Flight-Line***-Prior to starting the aircraft:

- Before the FM transmitter is initially turned on, make sure that you have the correct frequency pin first and that the pin matches the frequency of the transmitter in your hand.
- Transmitter battery voltage has been verified
- Model selectable transmitters have correct model selected
- All control surfaces move in the right directions (one more time, to be sure)
- Verify that control surface trims are correct
- There are no glitches on the controls

***When starting the aircraft*:**

- Verify that the aircraft is secured by a tie-down or qualified assistant
- Throttle is set below mid-point
- All persons and equipment are clear of the "propeller rotation area"

From this point individual aircraft have unique requirements but the key point is that we want to ***maximize SAFETY by minimizing risks***.

***Approaching Pilot Box:***

- Always know the flight pattern prior to taking-off. Your first turn will always be away from the flight line- NEVER towards it
- Remember to call your intentions when taking-off, landing, entering and exiting the runway.
    - Never work on an aircraft while it is sitting on the runway, you may be hit by a landing aircraft. Return your plane to the flight line or the pits if the adjustment can't be done quickly.

# Appendix E
# Previous Presidents and Current Officers

## Previous Presidents

| | | | |
|---|---|---|---|
| 1964 | | 1991 | Charles Copeland |
| 1965 | | 1992 | David Dale |
| 1966 | | 1993 | David Tadlock |
| 1967 | | 1994 | Ed Copeland |
| 1968 | | 1995 | Ray Randolph |
| 1969 | | 1996 | Bill Langdoc |
| 1970 | | 1997 | Michael Laible |
| 1971 | | 1998 | Michael Laible |
| 1972 | | 1999 | Joe Parlanti |
| 1973 | | 1999 | Preston Hunt |
| 1974 | | 2000 | Preston Hunt |
| 1975 | | 2001 | Clay Bare |
| 1976 | J. W. Smith | 2002 | Clay Bare |
| 1977 | J. W. Smith | 2003 | John Boyle |
| 1978 | Tom McPhearson | 2004 | John Boyle |
| 1979 | | 2005 | Herman Burton |
| 1980 | Dave Thomasson | 2006 | Herman Burton |
| 1981 | Dick Centnar | 2007 | Mike Laible |
| 1982 | Henry Lee | 2008 | Mike Laible |
| 1983 | Dave Tomasson | 2009 | Mike Laible |
| 1984 | Don White | 2010 | Mike Laible |
| 1985 | Bradley Prior | 2011 | Mike Laible |
| 1986 | Jon Vincent | 2012 | Mike Laible |
| 1987 | Jon Vincent | 2013 | Mike Laible |
| 1988 | Dennis Smerz | 2014 | Mike Laible |
| 1989 | Jim Brock | 2015 | Mike Laible |
| 1990 | Mike Goza | 2016 | Mike Laible |

**JSCRCC officers for 2016 are**

| | | |
|---|---|---|
| President: | Mike Laible | 281-474-1255 |
| Vice-President: | Jerry Litjen | |
| Treasurer: | Dave Hoffman | 281-479-1945(W) |
| Secretary: | Kent Stromberg | |

**Honaray Life Members**

John Blaylock
Bruce Hilty
Bert Strieglar