

South Shore Amateur Radio Communication Station Board Approval Request

Requested by: Gene Jurrens
FCC Call sign: K0GKJ (Amateur Extra Class)
Unit 22B

Marina South Shore Condo Association (MSSCA)
Burnt Store Marina
Punta Gorda, FL

Original Board Sponsor: John Holmes
Reviewed with John Holmes, Jim Waller, Ginny Lidstone,
Miles Matthews (Gateway)

Revisions:
February 6, 2006
November 16, 2007
February 22, 2008
June 22, 2009

Summary: Request a Board Decision for the 2009 Storm Season

- Request board approval to install a highly weather-resistant and highly effective “stealthy” antenna on the roof of Marina South Shore Building 2 (looks like an upside-down umbrella frame – picture on slide 4)
 1. Essentially invisible from the ground, air & adjacent roofs (“stealthy”)
 2. Lower wind load than a DirecTV dish
 3. Won't interfere with TV reception
 4. Uses same engineered mount as board-endorsed DirecTV dish on mansard wall (not roof)
 5. Easy non-invasive install and un-install
 6. Very invisible to wind, OR can be quickly secured before a storm (15 minutes) and quickly return to operation after storm (resident operator here year-round)
 7. Works when cells & landlines fail (as in Charley) and can operate from batteries when AC power fails
 8. The rest of the radio station is essentially already in place in Unit 22B. Only an antenna and some final installation required
- Owner commits to:
 1. Install a proven-design low profile antenna at owner's expense (see picture next chart)
 2. Monitor for any possible but very improbable environmental radio frequency interference (RFI) as a result of casual amateur radio station operation
 3. Prevent and/or resolve any RFI issues
 4. Report back to board after one season's use
 5. Make station (and licensed operator) available for community use as a **communication command post** in times of disaster preparedness and/or recovery

Thank you. Submitted by Gene Jurrens, Amateur radio call sign: K0GKJ, Phone: 941-575-9373, email: gjurrens@aol.com (call or email with questions)

Additional Detail

Read only if interested or if you have
unanswered questions...

Antenna Summary

What is Ham Radio?

Community Benefits

Proposal Specifics

Antenna Specifics

South Shore Orientation (satellite photo of
MSSCA)

Proposed Building 2 Ham Antenna Installation



- Note low/"thin" profile of antenna in picture above (compare to picnic bench in the background). This keeps it low profile from top of mansard).
- It is **NOT** a tall vertical antenna that would easily exceed 25 feet in height at these frequencies.
- On building 2's roof, set back from front of building, with bottom of antenna only a few feet above mansard wall, will not be visible from the ground & barely noticeable from other buildings, if at all (a very "stealthy" design).
- Very light weight, very strong proven storm-resistant design.
- Vertical tube securely bolts to satellite TV dish mount.
- Does not interfere with any roof top maintenance.
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- Mounts on mansard wall (not roof) just like a satellite TV dish (on the board-endorsed engineered mounting bracket)
- Cable to apartment via a short run paint color-matched low profile surface mount channel virtually invisible to the casual observer

What is Amateur (“Ham”) Radio?

- **A fun, interesting, diverse & esoteric hobby, as well as significant potential for community service (the hobby's noble origin & ongoing heritage)**
- **Similar to the VHF radio on your boat, but “broadcasting” (transmitting) to others can be local, to nearly global, with very low transmitting power, assuming an efficient antenna**
- **A well disciplined “self-policed” hobby (also FCC regulated)**
 - This is critical with essentially unlimited long range communication
 - In stark contrast to CB radio (not well policed and short range only)
 - More similar to long range marine (SSB) radio, except business use is NOT allowed on ham frequencies (it is on marine SSB for a fee)
 - There are no fees for ham communication, even with Internet-like computer communication via radio (that is, Internet with no cable or satellite, and potentially, even with no AC power)
 - An amateur radio operator is also called a “ham”
 - Requires taking one or more tests to obtain a license to operate on ham frequencies
 - 3 different levels of license plus Morse Code (now optional). The first level relatively easy to obtain (makes for a knowledgeable & responsible radio operator). Highest level, Amateur Extra, is quite challenging.

What is Amateur Radio?

- **Operator can listen on a speaker or on headphones and**
 - Talk on a microphone
 - Send Morse code with a “telegraph key” (a pleasant art form)
 - Communicate on computer connected to Ham radio (“digital modes” = over-the-air alternate to, and independent of, Internet)
- **Requires:**
 - Radio
 - Antenna (either indoor or outdoor) – must be outdoor in MSSCA due to concrete / metal construction (good for hurricanes, bad for radio waves)
 - Connection to antenna
 - Computer (optional)
 - Licensed operator
- **An associated hobby is SWL (short wave listening)**
 - Hundreds of SW broadcasts (scheduled & unscheduled) worldwide every day
 - No license or sophisticated radio station required for SWL
 - Interesting view of world events (from foreign broadcasts)

Potential for Community Benefit

- Of interest to other current or potential hams?
 - South Shore or off shore (long range communication with boats)
- Highly respected worldwide esoteric avocation
 - Significant focus within the hobby is on community service during times of disaster
- Opportunity for local, regional, national & global cultural exchange
- Perhaps most significant is potential for short and long range communication, e.g.,
 - **South Shore Communication Command Post for:**
 - Disaster preparedness & recovery (remember Charley?)
 - Amateur radio community renowned for network of
 - Emergency services access
 - Information access
 - General communication (including telephone relays via radio)
 - Power failure - station can be battery operated, independent of all local utilities...
 - Can be taken mobile (in the car) if necessary, e.g., evacuation

Radio Amateurs Community Service

Ham radio operators have consistently assisted in disaster recovery providing short & long-range emergency communications:

- ✓ On site
- ✓ Field communication centers
- ✓ Liaison to public services...

Walking the Talk...

Amateur Radio Community Service:

“Example of Amateur Radio’s extraordinary response to what could prove to be the disaster of the decade—Hurricane Katrina.”

- ✓ A dramatic rescue at Tulane Hospital
 - ✓ Ham couple is communication mainstay at hospital
 - ✓ Associated with the American Red Cross Volunteer Staging Center
 - ✓ Amateur radio volunteers pivotal in rooftop, attic rescues
 - ✓ Making a difference !
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- ✓ **How would support for our South Shore community have been different or better immediately after Hurricane Charley if we had had an emergency communication command post at our (your) disposal?**

The Proposal

- Establish a private radio station with extended battery operating time capability within one unit (22B) in South Shore coupled to a low-profile & non-intrusive antenna on the roof installed at the expense of, and for the private use of the owner (licensed operator) that could be leveraged by our community as needed for:
 - ✓ **General interest in Amateur Radio**
 - ✓ **Emergency Communications**

The Antenna

- **Aesthetically**

- Invisible from the ground
- Virtually invisible or unnoticeable from the air or from a distance (e.g., the top floor or roof of other nearby buildings)
- Suggest keeping it “precedent-free” by characterizing it as the South Shore emergency communications station (additional similar but unlikely potential requests handled on a case-by-case basis)

The Antenna

● Mechanically

- It's basically a thin insulated wire in a circular pattern spread by very strong but small diameter fiberglass poles (think "upside-down umbrella frame")
 - Mounted horizontally above the top of inside vertical wall of mansard (not on the roof)
 - **same mount as DirecTV, less wind load than a single dish**
 - Almost invisible to the wind - less wind load than a single satellite TV dish
 - Also easy & quick to un-install (if condo is sold, for example)
 - This design has successfully survived countless storms and at least one cat-4 hurricane
 - Height from bottom to top of antenna less than five feet, radius of eleven feet
 - Won't interfere with any rooftop maintenance, etc.
- Does not
 - Restrict movement on the roof
 - Restrict access to mansard access panels
 - Come in contact with the roof's horizontal surface (only the inner side of metal wall – the vertical mansard – same as a DirecTV dish)
 - Present danger to persons on the roof
 - Affect the roof any more than mounting a satellite TV dish (same mount installed by Todd)
- Does require
 - Connection from antenna into apartment (just like DirecTV) – a short run, low profile, color matched enclosed surface channel

The Antenna

- Electrically

- Very low power to antenna from radio (just 5 to 100 watts) – optimized for low power battery consumption:
 - Highly unlikely to cause any Radio Frequency Interference (RFI) with TVs or other electrical devices
 - Concrete / steel construction of South Shore is a great “shield” against this type of rare interference and isolated to immediate vicinity of antenna on building two in any event
 - Installation includes filters to prevent “RFI” (both to & from), just in case
 - In the rare case (e.g., a TV immediately below antenna in building two), easy fix if needed (small filter device on cable to affected TV, provided by Jurrens)
 - Support from building 2 residents

Marina South Shore Orientation

