



*The Steiner Commander XP comes with multiple eyecups to accommodate glasses- and non-glasses-wearers.*

are waterproof and have a compass, a focus adjustment for each eye with a range of +5 to -5, 7x magnification, 500 millimeter objective lenses, and a rangefinder.

**HOW WE TESTED**

Each of the binoculars faced land-based testing and sea trials in the Florida Keys. Testers rated visual acuity (sharpness), handling, focusing, eyecup comfort, and compass.

Aboard a test boat, we used the binoculars to sight nearby objects and view day beacons, houses, trees, and other boats during daylight and twilight hours. After sunset, testers viewed lit navigation markers and a long shoreline with a mix of well-lit houses and mangrove forest. Also, one tester, with a known value for his myopia, tested the binoculars' diopter scales for accuracy.

The Value Guide on page 27 offers manufacturer specifications and our testers' combined ratings. The focus rating includes the use of the individual eye focus, the usefulness of the diopter adjustment, and the comfort and effectiveness of the eyecups (with and without eyeglasses). If a particular binocular performed well in all areas, it was rated Excellent. Deficiencies in one or more areas resulted in a lower rating.

Handling ratings take into account the quality of the supplied case, comfort of the neck strap, weight, lens caps ease of use, and the bino's shape and grip.

Our day/night view rating includes visual acuity, ease of compass use, and any reduction in field of view when using glasses.

Makers' claims of waterproofness were confirmed by

# Marine Bino Update

*Testers compare Steiner's latest 7x50 with 2006 champ, 12-year-old Fujinons.*

A top-quality 7x50 marine binocular can be pricey, but it's essential gear on a cruising boat—and it's usually money well spent. Primo binos offer superior optics, enhanced durability, and a long warranty. Buyers should expect gear of this caliber to last a decade or longer, without breaking a sweat. Case in point: Our 12-year-old Fujinon FMTRC-SX binocular bested the field in our last test of pricey binos (November 2006) and was the measuring stick for this test update.

Check out that past test and the 2006 report on binos under \$300 for free at [www.practical-sailor.com](http://www.practical-sailor.com), in the "Tools and Techniques" section.

**WHAT WE TESTED**

In *Practical Sailor's* 2006 look at this category of marine binoculars (with and without internal compass), we compared products from Steiner, Swarovski, and West Marine with the Fujinon old-timers. Since then, Steiner has released the Commander XP, the company's latest premium marine optics offering.

This test update compares the XP with the compass-equipped Fujinon, the reigning *PS* Best Choice in this category, and the Steiner Commander V with compass, which we recommended in the 2006 test.

All three marine binos in this test



Steiner Commander V

Fujinon FMTRC-SX

Steiner Commander XP

Photos by Al Herum

**PS VALUE GUIDE 7x50 BINOS with COMPASS over \$300**

**BINO LINGO**

MAKER	STEINER	FUJINON	STEINER
MODEL	Commander XP	FMTRC-SX ★	Commander V ✓
PRICE	\$1,099	\$500	\$899
PRICE SOURCE	buytelescopes.com	buytelescopes.com	buytelescopes.com
WEIGHT	39 oz.	55 oz.	40 oz.
PRISM TYPE	Porro	Porro	Porro
WARRANTY	30 years	Lifetime	30 years
RANGEFINDER	Yes	Yes	Yes
FOCUS METHOD	Individual Eye	Individual Eye	Individual Eye
EYE RELIEF	22 mm	23 mm	22 mm
EXIT PUPIL DIAMETER	7.1 mm	7.1 mm	7.1 mm
FIELD OF VIEW (1,000 YARDS)*	390 ft.	393 ft.	385 ft.
CASE	Yes	No	Yes
RATINGS			
FOCUSING = diopter adjustment, with eyeglasses, eye cups, use of center focus	Excellent	Excellent	Excellent
DAY/NIGHT VIEWING = visual acuity day and night and use of compass and light	Excellent	Excellent	Excellent
HANDLING = case, strap, weight, lens caps, shape, grip	Excellent	Good	Good
WATERPROOF TEST	Pass	Pass	Pass
✓ Recommended ★ Best Choice		*Manufacturer specs	

dunking the products in salt water. None showed evidence of water intrusion.

In the final analysis, we considered the ratings, price, and warranty of each binocular.

**FUJINON FMTRC-SX**

The FMTRC-SX is more bulky and heavier by far than the Steiners. The Fujinon has thick, black rubber for grip and protective armor. Two testers preferred the grip and heft of the 55-ounce Fujinons, but another tester found them too heavy.

Testers found focusing to be a breeze with the Fujinon. The individual-eye diopter adjustments were accurate, easy to use, and easy to read. Glasses-wearers with a known correction can simply set it into the diopters, then use the binos without glasses and they'll be focused.

The silver-dollar-sized compass was well dampened and easy to read in daylight. In low light, testers found getting a bearing easier with one eye closed.

Fujinon does not supply a case

with the FMTRC-SX. The strap has a large neck pad that offers flotation, and the front lens caps fit well and were easy to use. They are hinged individually on the bottom of each front lens and fall out of view easily as soon as they were opened.

**Bottom line:** The FMTRC-SX has superior optics and top-quality construction, and carries the only lifetime warranty in the field. It remains our top pick.

**STEINER COMMANDER V**

In 2006, we tested and recommended the Steiner Commander V (model 392, with compass), and took a second look at for this test update. Steiner has updated the Commander V since the 2006 test, but the changes are minor.

The compact Commander V is lighter than the Fujinons and features high-definition optics and synthetic nitrile rubber coating for armor. One tester noted that the fluid-damped compass—2½ inches in diameter and about an inch tall—interfered with his grip.

**Coated Optics**—Microscopically thin lens coatings designed to reduce light loss and glare while increasing both sharpness and contrast.

**Diopter Adjustment**—A focusing ring on the eyepiece allowing the user to adjust the focus for any differences in vision between eyes. A negative diopter value signifies myopia while a positive diopter value signifies hyperopia. In high-quality binoculars, the diopter adjustment is marked and accurate enough to be set to an eye-glass wearer's prescription.

**Exit Pupil**—The diameter of the circle of light leaving the binocular eyepiece. A larger exit pupil provides a brighter image and makes the binoculars easier to use in low light and at night. The further the eye is from the eyepiece, the smaller its relative diameter.

**Eye Relief**—The distance the eyepiece can be held away from the eye with the user still able to see the full field of view. Longer eye relief generally provides more comfortable viewing.

**Field of View**—The width or height of the circular viewing area seen with the binoculars.

**Objective Lens Size**—The diameter of the front lens, in millimeters. A larger objective lens allows more light to enter the binocular and provide a brighter image. All the binos in our test have a 50-millimeter objective lens.

**Prism System**—There are two types, porro and roof. Both allow for a reduction in the overall bino size. Traditional binoculars with an offset between the objective lens and the eyepiece use the porro prism. Those with the eyepiece and objective lens in alignment use the roof prism. Porro prism binoculars are generally less expensive to make, but are heavier.

—For more bino lingo, view this story online at [www.practical-sailor.com](http://www.practical-sailor.com).



*The Steiner Commander XP comes with interchangeable eyecups: two sets of round eyecups for eyeglass wearers (above, left) and a contoured version with light-blocking wings that roll down (above, right). A horse-shoe shaped tool to change the eyecups comes standard.*

When we set the diopter to the known correction of the myopic tester, the Commander V required further adjustment to gain sharp focus. Both Steiners have lockable memory oculars that can be set to a particular correction. This feature will come in handy on night watches.

When testers unpacked the Commander V from its box, the right eyecup and base became detached from the ocular. Steiner has seen redesigned the eyecups to keep this from happening.

The Commander V compass is well dampened, but testers found that a rapid swing would stop it for a few seconds before it swung the last 20 degrees to the final bearing. The compass was easy to read and its battery-operated light improved night readings; the light requires two watch-style alkaline batteries.

The Commander V comes with a hard-sided case and a 1-inch wide web nylon strap.

**Bottom line:** The Commander V is a high-quality option for a compact bino. It's pricier than the Fujinon, but we still recommend it.

### STEINER COMMANDER XP C

The XP (model 395) is Steiner's latest addition to the Commander lineup. According to the company, the XP features the same high-definition optics of earlier Commander binos but has a new outer lens coating that further enhances optical performance. The XP also has a new rubber armor designed for a longer service life than previous Commander products.

"The new exterior lens coatings on the objective and ocular lenses are hydrophobic and cause water, fresh or salt, to bead and virtually fall off of the lens surface, reducing distortion from water droplets sticking to the surface," explained a Steiner marketing representative.

Testers dunked each of the binoculars to test this effect and found that the water drained off every one almost immediately. When we tested with a spray bottle to reduce the size of the water droplets, none of the bino lenses shed the water. (See photo, below left.) Steiner maintains that their spray tests showed that the coating allowed the water to shed easily.

The XP binos appear very similar to the Commander V with only a few minor cosmetic changes. The XP uses the same

compass and compass light as the Commander V and weighs in at 39 ounces, a smidge lighter than the Commander V.

Testers found the focus diopter index and marks to be accurate. The memory ocular on the XP is silver with chartreuse tabs (see photo at left) and operates in the same manner as the all-black units on the Commander V. The focusing rings operated smoothly and held their position when set.

The XP ships with three different sets of eyecups: One is contoured with wings that roll down nicely, and the others are for eyeglass-wearers. We found changing the eyecups easy with the supplied tool, just snap one off and snap the other one on.

Steiner provides a hard-sided case with the XP and a yellow, 2-inch-wide floatable neck strap.

Steiner says Commander housings are purged and pressurized with nitrogen, making water intrusion virtually impossible. Our tests supported this.

**Bottom line:** Another well-built, compact bino from Steiner featuring top-quality optics. The one downside is the unit's high purchase price.

### CONCLUSION

Our testers had trouble detecting even minor differences in visual acuity of any of the three binoculars tested. They were all superb and rated Excellent for day/night viewing.

Testers liked the variety of eyecups available with the XP and the quality of the mid-priced Commander V. We would prefer that the Fujinons came with a case, but they remain the top pick in this category because of their rugged construction, quality optics, lower price, and lifetime warranty. ▲



*Testers sprayed water on the lenses to test the Commander XP's hydrophobic coating (left) against the coatings of the other binoculars, like the Fujinon (right).*

### CONTACTS

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