

NOTE: This is a typical commercial passenger motorboat, 18 to 20 ft in length, 8 ft across and 5 ft deep. It is shown only to illustrate scale and should not be interpreted to indicate river flow characteristics or navigation. These notes are not intended to be used as guides in navigating the rapids. The illustrations are artistic renderings of the water structure and of some rocks. As such, they represent only the approximate condition of the river at the time the data were collected.

EXPLANATION

- Water, white indicates waves
- Sand
- Vegetation
- Igneous or metamorphic rocks

Figure 1—AT DISCHARGE OF 5,000 CUBIC FEET PER SECOND (CFS)

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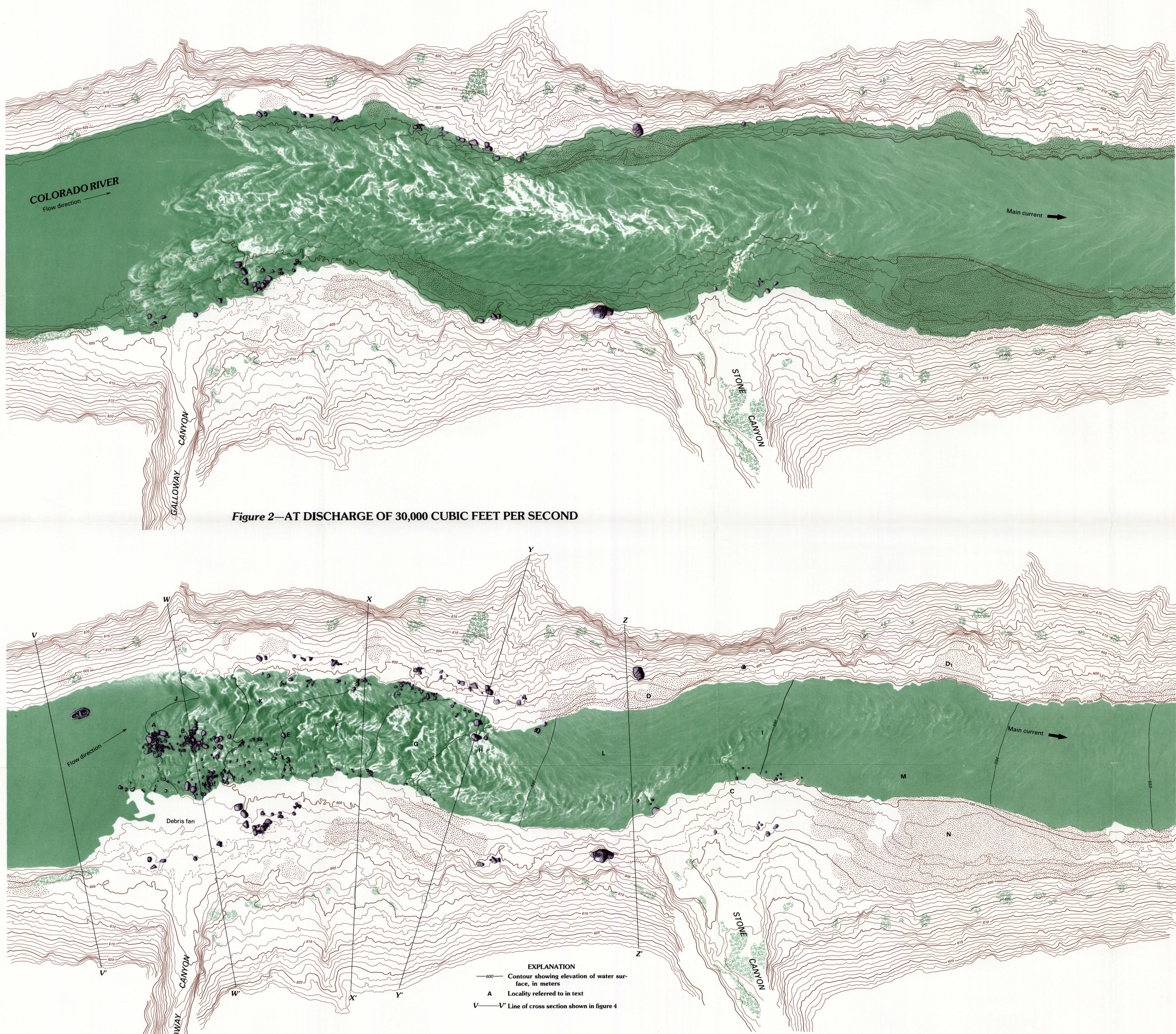


Figure 2—AT DISCHARGE OF 30,000 CUBIC FEET PER SECOND

Figure 3—WATER-SURFACE CONTOURS AT DISCHARGE OF 5,000 CUBIC FEET PER SECOND

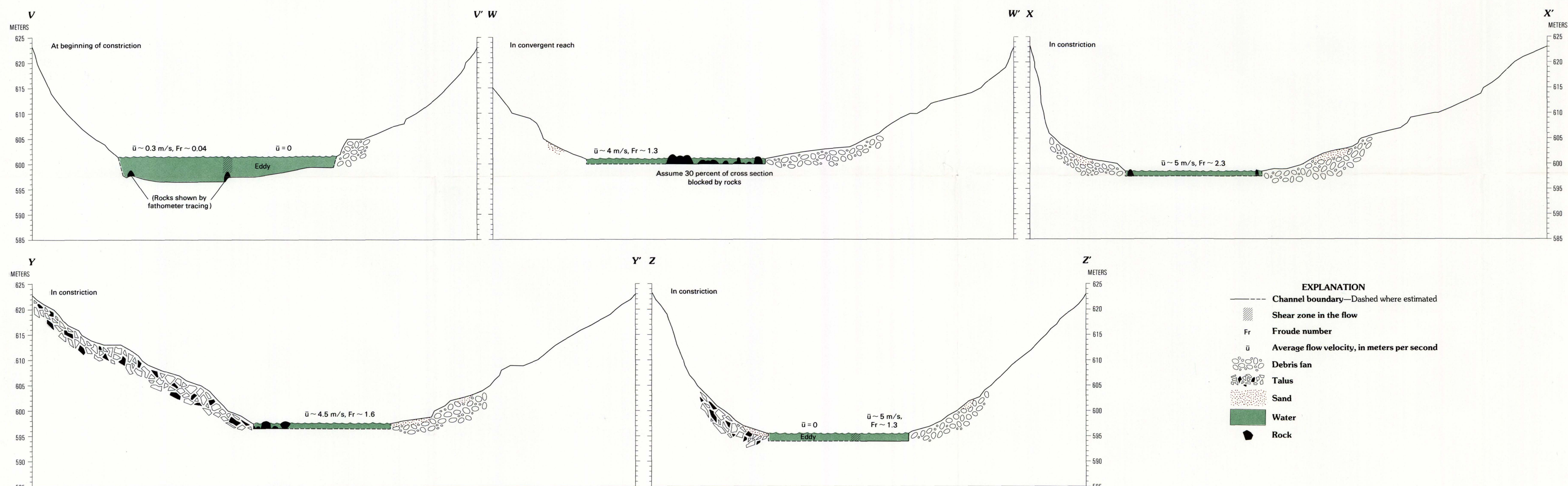


Figure 4—CROSS SECTIONS SHOWN ON FIGURE 3

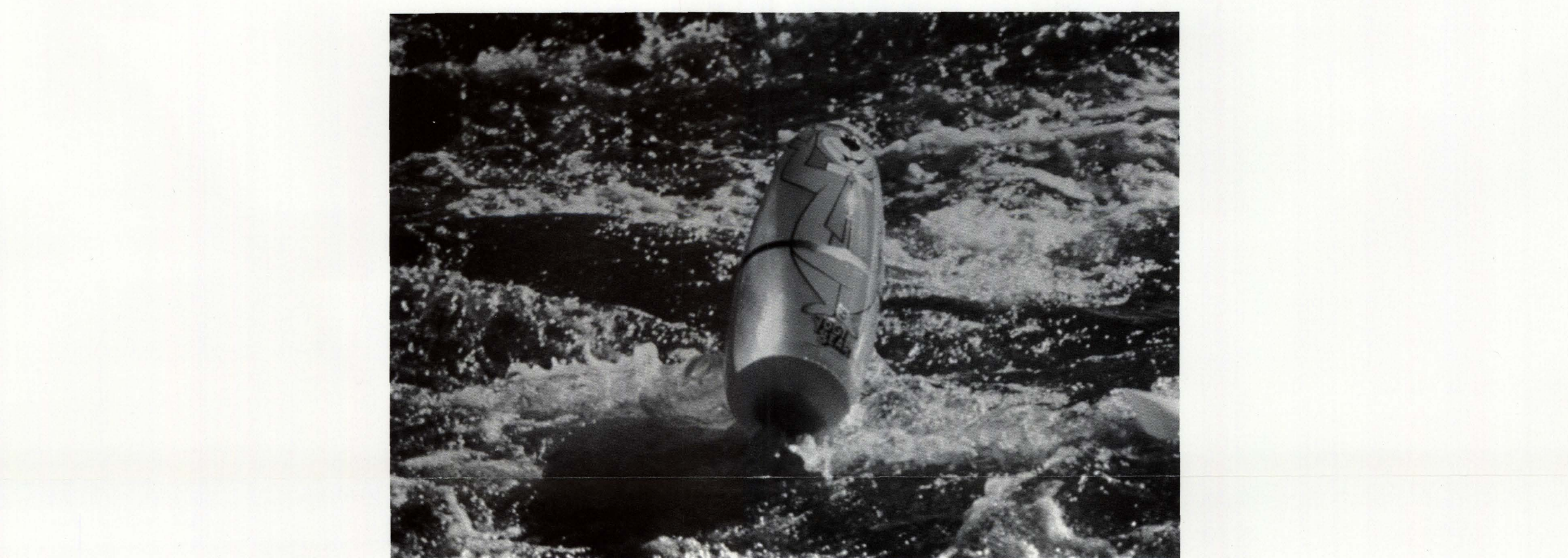


Figure 6—Typical float used for measurement of water-surface velocities. Float is approximately 1 m high and contains 800 grams of sand in its base.

INTRODUCTION

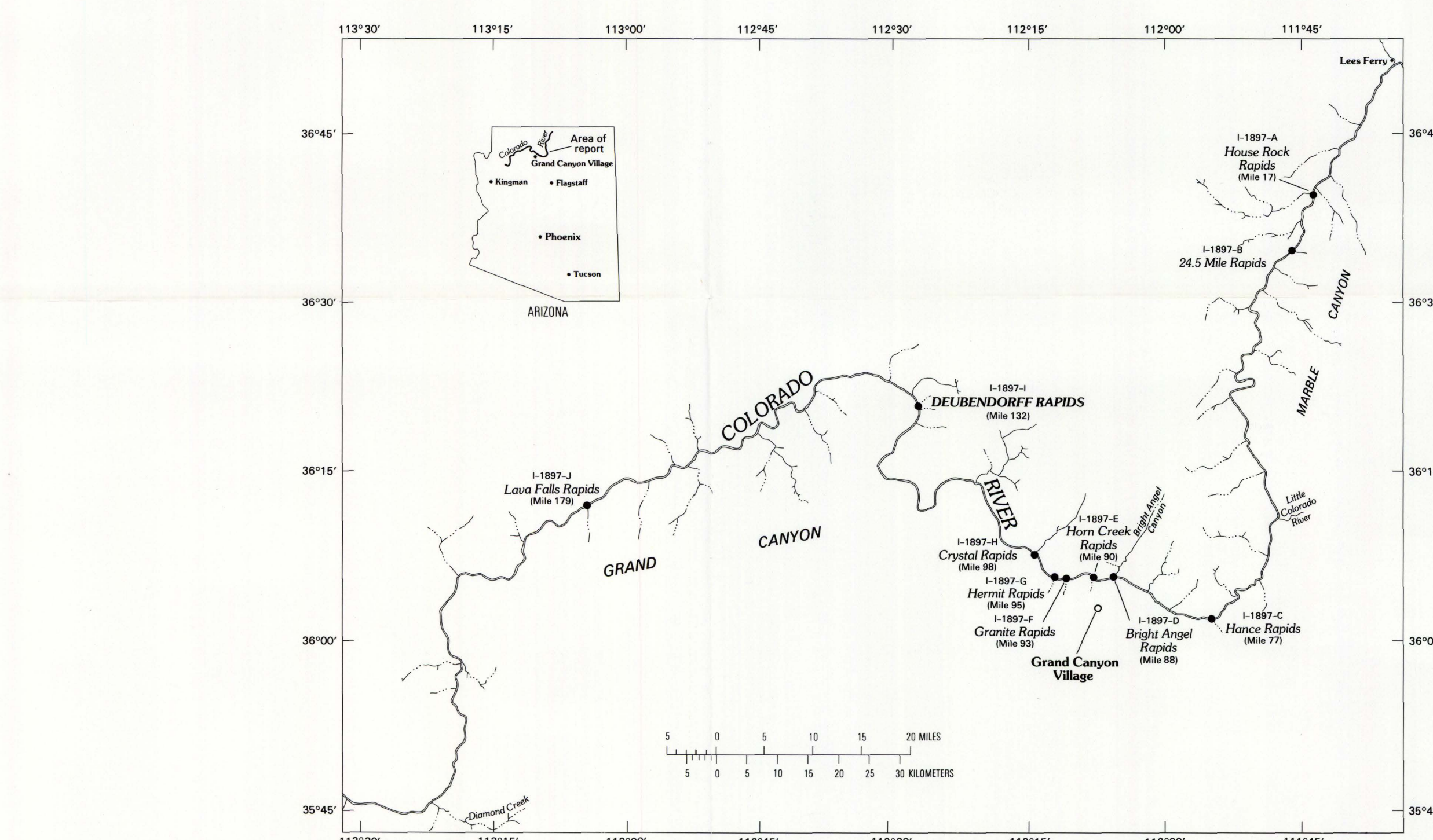
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REFERENCES

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Kieffer, Susan Werner, 1985, The 1983 hydraulic jump in Crystal Rapid: Implications for river-running and geomorphic evolution in the Grand Canyon: *Journal of Geology*, v. 93, p. 385-406.

Kieffer, Susan Werner, 1987, The rapids and waves of the Colorado River, Grand Canyon, Arizona, U.S. Geological Survey Open-File Report 87-096.



LOCATIONS OF MAJOR RAPIDS IN THE COLORADO RIVER, GRAND CANYON, ARIZONA
[1-1897-A indicates series number of map for each rapids.]