

# SAFETY BULLETIN

## Laser Pointers

National Institute of Standards and Technology (NIST) researchers recently tested 122 laser pointers. Nearly 90 % of green laser pointers and about 44 % of red laser pointers tested were out of compliance with federal safety regulations.

### Laser Pointers are commonplace and so may seem harmless, but:

NIST tests conducted on laser pointers labeled as Class IIIa or 3R showed that about half of them emitted power at twice the Class limit, making their correct designation Class IIIb – significantly more hazardous.

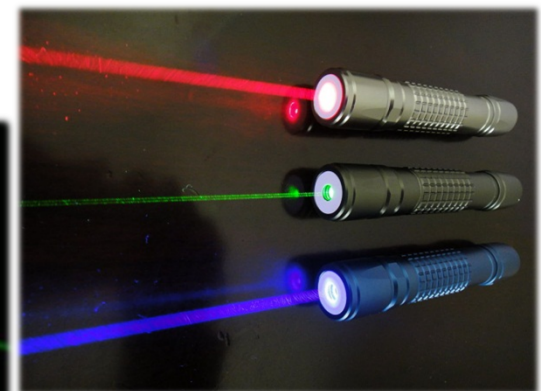
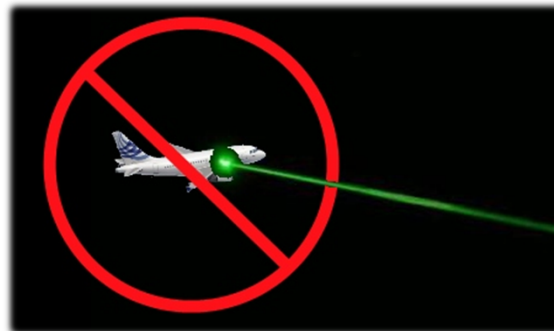
The highest measured power output was 66.5 milliwatts; more than 10 times the limit. Green laser light is generated from an infrared laser beam, which should be confined within the laser housing, however more than 75 % of the devices tested were found to emit infrared light in excess of the limit.

### Use laser pointers with caution.

Remember that careless or frivolous use of a **true** Class IIIa laser pointer could cause temporary flash-blindness and consequently an accident – if your laser pointer is too powerful for Class IIIa, it could cause permanent damage.

**The green laser distance chart on the next page indicates the extent of the flash-blindness effect for a true Class IIIa laser.**

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## Safety distances for a legal green laser pointer (5 mW, 532 nm)

