Notes on needles 4th june 2015

1. Virgin needles (control) x2 in 1” optic box

Image 1564123556256 is off of a virgin needle (cleaned and baked). These needles were cleaned and baked to LIGO protocols and then have been sitting out in a cleanroom class 100 for several weeks. Image taken with Celestron camera. These virgin ones were from our reject pile i.e. they have bent ends from mishandling! There is some evidence of contaminants (small fluffy items on length, not as much as on needles from set 2 below).

1. Array of needles laid out & taped onto Alum bar (2 rows of ~ 10)
   1. Central row

Test needles used on circular array of needles. 20 hours service with 1 hour corona time. The set labeled “Central” were Centrally located on the array. The Central set includes a “Double” which are shown in image 156412174852. One of the double set is a control needle i.e. it has not seen service. Image taken with Celestron camera.

* 1. Peripheral row

Test needles used on circular array of needles. 20 hours service with 1 hour corona time. The set labeled “Peripheral” were located on the periphery of the circular array. Image 1564121759813 is from one of the set on the peripheral side of the large strip. Image taken with Celestron camera.

1. Single sample needles
   1. Ball on End

The one marked “Ball on end” was Arced to ground in “spark plug” mode. It was imaged on the AmScope. Refer to picture ball on end.jpg.

* 1. Bent End

The one marked “bent end” was corona in air for several hours. It was imaged on the AmScope. Refer to picture bentend.jpg.

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