

1. AMCOMMAND II 8225-HP/28/FDH Two-Diver Control System
 2. Pressed Steel Tank, Co. High-Pressure Steel SCUBA Cylinders
 3. Zeagle OCTO+ MKII Regulator/BC Inflator Combo Unit
 4. Ocean Management System (OMS) IQ 4 BC/Backplate Harness System
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Re: Pac Endorsement comment 7.(a)(14)... Our contacts at the Naval Safety Center in Norfolk responded to my question with the answer below. I am having HEALY weigh sample full tanks so we don't need to refer to the Navy's report. I will attempt to get the "per manufacturer" info stated below, directly.

The reference to an 8.8lb steel tank is what the tank approx. weighs when fully charged to 3442psi and submerged in salt water not a dry weight on the surface which is approx 49lbs (again fully charged to 3442psi). For our comparison (not knowing the manufacturer) we used a PST E7-100 Steel SCUBA Cylinder. The buoyancy weight at full charge is -8.5lbs and when empty (no air) its buoyancy is -1.0lbs per the manufacturer. The SCUBA bottle would lose weight as it's air is depleted by breathing or free flow regulator.

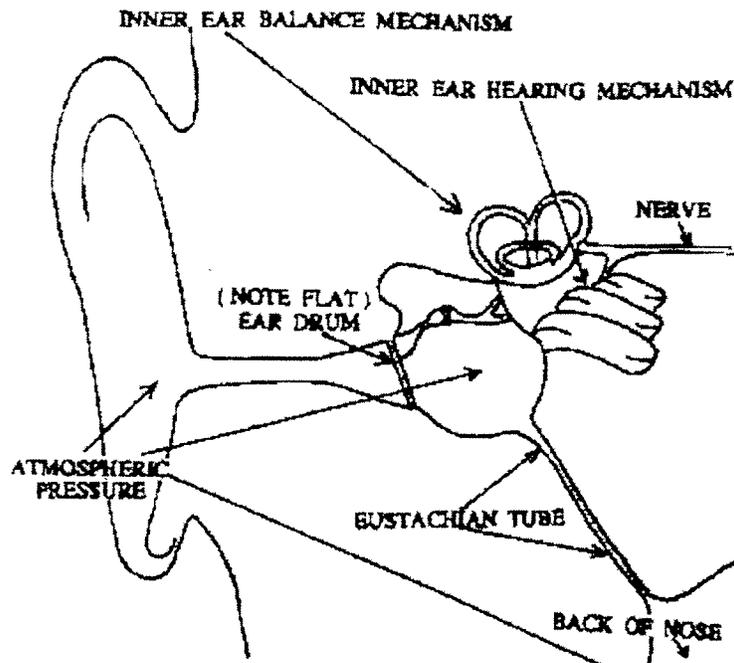
Re: Pac Endorsement comment 7.(a)(17)... The AIM board mentioned inner ear squeeze and PAC contends the term is middle ears squeeze.

This from <http://www.scuba-doc.com/Midearbt.html>

Middle Ear Barotrauma

ENCLOSURE(8)

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Middle ear barotrauma is caused by the inability of the diver to clear the space in the middle ear through the Eustachian tube and has been described by MacFie and placed in TEED types I through IV. This diagnosis is made on the basis of pain on descent and physical examination shows redness of the tympanic membrane due to hemorrhage and occasionally free blood in the middle ear cavity. MacFie has types I through V, Pullen describes mild, moderate and severe.

TEED Classification of Middle Ear Barotrauma

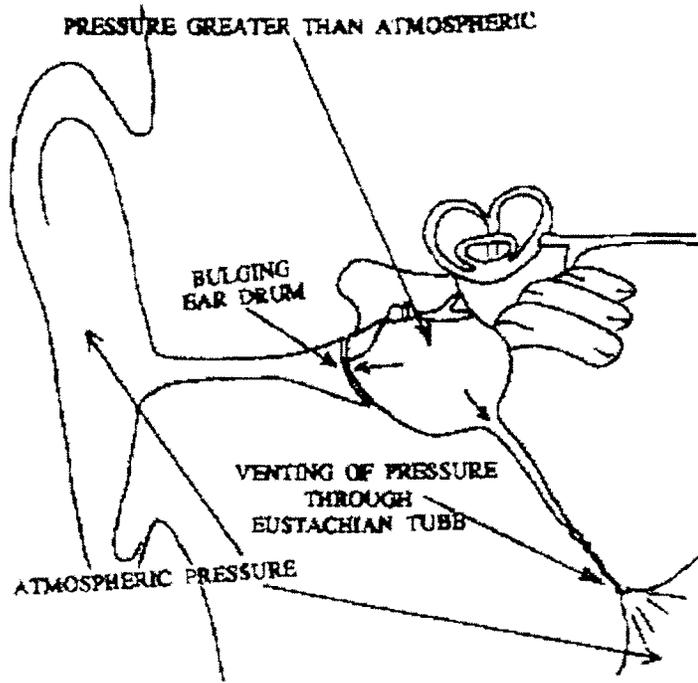
Type I--congestion of umbra

Type II--entire drum red

Type III--hemorrhage and fluid

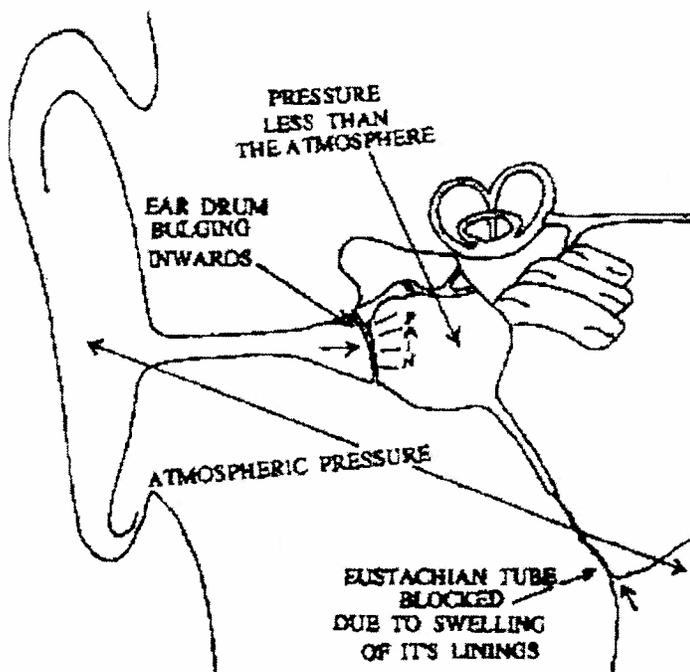
Type IV--hemorrhage and perforation

Nature abhors a vacuum, so negative pressure in the middle ear retracts the ear drum and fills the middle ear with fluid.



To prevent **middle ear squeeze**, equalize frequently during descent by auto-inflation. The diver should dive feet first, which reduces venous engorgement of the head, sinuses and eustachian tube. The head down position produces a closure of the sinus ostia or eustachian tube.

During descent, unequal pressure causes an inward bulging of the tympanic membrane, which will continue unless the middle ear pressure is equalized. Fluid pressure within the inner ear equals that of the water surrounding the diver and with continued descent the pressure in the external auditory canal increases. Unless the pressure is equalized, round window rupture or tympanic membrane rupture may occur with as little as 100mg Hg difference between the external auditory canal and the middle ear. This change in pressure can be as little as 4 feet sea water.



Re: Pac Endorsement comment 7.(a)(22)...The NEDU report section on regulators addresses the fact that the AGA (Mk 20) mask is authorized to the rated depth of the attached regulator.

Re: Pac Endorsement comment 7.(a)(23)... The post dive scene photos show two LP hoses attached. [REDACTED] discussed this with [REDACTED] who can confirm.

Re: Pac Endorsement Comment 7.(b)(1) PAC stated the board meant tenders where they said divers. A board member confirmed this below.

Yes Sir. We did mean tenders.

V/R,
[REDACTED]

-----Original Message-----

From: [REDACTED]
 Sent: Thursday, November 30, 2006 7:30 AM
 To: [REDACTED]
 Subject: RE: HEALY AIM enclosure page count issue

Okay. Will do. Could you also confirm that you meant tenders vs. divers in opinion 37.e on page 52? The cited enclosure support the word tenders but I did not want to 'presume'. Thanks.
[REDACTED]