NIOSH Comments to DOL

July 12, 1985

Docket Officer
Docket No. S-009
U.S. Department of Labor
Occupational Safety and Health Administration
200 Constitution Avenue, N.W.
Washington, D.C. 20210

Dear Docket Officer:

In response to the request by OSHA [50 FR 15758, 4/22/85] for comments and information concerning proposed revision of 29 CFR 1926.803 (Compressed Air) and Appendix A. to Subpart S (Decompression Tables), 29 CFR 1926, the National Institute for Occupational Safety and Health (NIOSH) resubmits its report "Criteria for Interim Decompression Tables for Caisson and Tunnel Workers." This report, which responds to the issues raised in the current request, was originally submitted to OSHA in 1981.

If additional information is desired, please advise me.

Sincerely yours,

J. Donald Millar, M.D.
Assistant Surgeon General
Director

4 Enclosures

cc:
Dick Lemen

CDC:NIOSH:DSDTT:LMazzuckelli/JDMillar:mh

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CRITERIA FOR
INTERIM DECOMPRESSION TABLES
FOR CAISSON AND TUNNEL WORKERS

DEPARTMENT OF HEALTH AND HUMAN SERVICES

CENTERS FOR DISEASE CONTROL

PUBLIC HEALTH SERVICE

NATIONAL INSTITUTE FOR OCCUPATIONAL
SAFETY AND HEALTH

Acknowledgements

The basic information in this document was developed by Sea-Space Research Co., Inc. under NIOSH Contract 210-80-0110. The Principle Investigator was Peter O. Edel. The NIOSH Project Officer was Alan H. Purdy, Ph.D., Office of External Coordination and Special Projects. Final preparation for publication and transmittal was carried out by Frank L. Mitchell, D.O., Division of Criteria Documentation and Standards Development.

Summary

The process of returning employees to normal atmospheric pressures after work in caissons or other areas of elevated pressures has long been the source of acute, chronic, and sometimes disabling injuries. The current OSHA regulations on this subject have as their basis decompression tables that, while an improvement on those used previously, are not adequate to prevent these injuries.

To provide protection until definitive tables for these workers have been designed and laboratory-tested, interim tables are presented that will provide a greatly increased margin of safety in decompression operations. NIOSH recommends that enforcement activities be suspended on those sections of the current regulations known to be hazardous, and that these interim tables be used as a consideration when applications for variances are being considered.

Background

There are two general categories of injuries and illnesses associated with tunneling or caisson decompressions: gas embolism and decompression sickness.

Gas embolism is usually caused by air trapping in the lungs. The trapping may be either involuntary or voluntary. The involuntary trapping is due to pre-existing disease states that allow air to enter certain portions of the lung during compression but tend to retain the air during decompression. Voluntary trapping is done by the tunneler closing his glottis during decompression. Regardless of the reason for air trapping, the results are disastrous. When a pressure differential of between 2 and 4 pounds is reached the trapped air tears through the lung tissue and may enter either the chest cavity, the arterial blood system, or both. If the air enters the chest cavity the lungs may deflate or the heart may be squeezed. If the air enters the arterial system the brain or spinal cord can be damaged. The results of gas embolism are rapid and often fatal.

Decompression sickness, by far the most common ailment of caisson or tunnel workers, is caused by gas bubbles in the tissues and the resulting physiological reactions. The bubbles are created by non metabolic gases which are dissolved in the body tissues under pressure. The 1979 edition of the U.S. Navy Diving Manual discussed two levels of decompression sickness, non-serious and serious. The non-serious includes pain in the arms, legs, shoulders, and hips, and/or skin changes which include welts, itching, burning and numbness. The serious variety includes central nervous system damage (e.g., damage to the brain and spinal cord) and the chokes, which may include shortness of breath, chest pain, unconsciousness and shock.

Dysbaric osteonecrosis is also considered to be a form of decompression sickness. It is believed to result from the capillaries in the bone being blocked by lumped red cells and platelets or fat globules, resulting in the death of bone cells.

History

Compressed air has been used since the 1840's to pressurize mines and caissons for the purpose of holding out water to permit excavation. The first known case of decompression sickness in man occurred in a coal miner and was reported by Triger in 1845.[17] By 1854, Pol and Watelle recognized decompression sickness to be an entity peculiar to compressed air workers and noted that returning to elevated pressure alleviated the symptoms.[14] Paul Bert, in 1878, demonstrated that decompression sickness was caused specifically by bubbles of nitrogen which eluted from the tissues into gas phase during decompression.[3]

Decompression rates for caisson workers continued to vary widely from company to company; there were no published tables for this purpose. When a tunnel was driven under the Hudson River in 1889, the death rate due to caisson disease was, at one time, 25% of the men employed. A new superintendent installed a recompression chamber and reduced the mortality to the point where in 15 months only 2 deaths occurred out of 120 men employed in the tunnel.[8] It was noted on the same project that an increase of carbon dioxide in the tunnel produced a serious increase in the incidence of decompression sickness.

Haldane's Tables

The first empirically derived systematic decompression tables were produced by Haldane on a commission from the British Admiralty in 1908.[5] These tables were based on the premise that nitrogen bubbles in the tissues caused decompression sickness and if the pressure ratio of nitrogen dissolved in the tissues to total ambient pressure surrounding the body never exceeded 1.58 to 1, a state of super-saturation could exist and no bubbles would form. Haldane assumed that in the absence of bubbles, the nitrogen elimination curve would be a mirror image of nitrogen uptake. The assumption of no bubble formation seemed warranted since, if the nitrogen to ambient pressure ratio of 1.58:1 were not exceeded, no symptoms appeared for the exposures tested. Haldane also developed the tissue half-time concept which arbitrarily and for theoretical purposes classifies the human body in 5 different tissue compartments each saturating exponentially at varying rates. Although these compartments did not exist anatomically, their use for mathematical and conceptual convenience vastly simplified decompression computations. Haldane assigned a 75 minute half time to the slowest tissue which implies that 98% of any nitrogen in the body could be eliminated in about 7 1/2 hours. In designing his tables, Haldane employed a staged decompression in which the diver is pulled up as far as possible for the first stage of decompression in order to establish the maximum outward gradient of nitrogen from the tissues. After the first stop (stage), which was generally fairly short, successive decompression stops (which occured at 10 foot intervals) became progressively longer. Of course, even the Haldane tables were modified as dictated by field use over the years, but some of his basic concepts have persisted to this day in decompression computation.

Haldane's new method of decompression proved itself to be practical, convenient, and, for the most part, successful. It was soon adopted by most of the major navies of the world and also by commercial diving companies. Compressed air tunneling contractors and caisson operators, however, remained apparently unaware of these advances and their decompression schemes continued to have little if any physiologic rationale.

Tunnel/Caisson Tables

In the United States, the State of New York adopted a formal decompression code in 1922, which embodied the principle of the "split-shift." This involved working about half a day under pressure, followed by a period of decompression and a surface interval of about an hour, during which the men generally ate lunch. Then they were recompressed for a equal period in the afternoon, followed by the same length of decompression as used for the first shift. These decompression tables provided what are now considered very severe and traumatic decompressions and did not take into consideration when they underwent their second decompression of the day. The workers were subject to two decompressions per day instead of one, and compared with modern naval air decompression schedules, these tables called for only a third or less decompression time. In Milwaukee, it was discovered after 1969 that a modification of the 1922 New York Code had produced a 35% incidence of aseptic necrosis.[10,12]

Men learned in some measure to tolerate acute symptoms caused by the use of these tables largely through an acclimatizing, or adaptation, process which is called "habituation" and the process of self-selection. The physiologic mechanisms responsible for habituation are still unknown. With regard to self-selection, those who were particularly or even normally susceptible to decompression sickness soon left the work force. Despite the now obvious inadequacies of the 1922 New York Code, it was soon adopted by most other states where compressed air work was being carried out.

Aseptic osteonecrosis is the term given to the death of bone tissue by non-infective causes. Dysbaric osteonecrosis is a type of aseptic osteonecrosis that is caused by exposure to high pressures. It was first described as resulting from occupational exposure to compressed air by by Bornstein and Plate in 1912.[4] Although a report appeared in the American literature the following year, little attention was paid to it and aseptic necrosis in tunnel workers remained a largely unknown peril.

The medical profession first became operationally concerned with this problem during the construction of the Lincoln Tunnel Third Tube, during which efforts were made to survey compressed air workers for possible bone disease. However, the unions objected to mandatory X-ray examinations, fearing that union members might be denied work if found to have lesions or aseptic bone disease. Despite this, ad hoc decompression tables that did not use the split-shift procedure were produced for the Lincoln Tunnel project in the hope that possible complications might be reduced.

With this single exception, the split-shift continued to be used almost exclusively until 1963, when the Washington State Decompression Tables were introduced. These tables were drafted chiefly by Duffner[15] and they were based on the hypothetical concept of three tissue compartments of 30, 60, and 120 minute half time tissues.

It must be emphasized that standard Navy diving decompression tables cannot be used for compressed air tunnel or caisson work. Divers usually work for comparatively short periods at greater depths. The available Navy tables cover these exposures. Long exposures of 5 to 8 hours at depths less than 122 feet, such as those experienced by compression air workers, are not included in Naval decompression schedules.

Background on the Need for Interim Decompression Tables

The Washington State Tables, which abolished the split-shift but maintained the principle of straight line or continuous decompression, were used by 105 tunnel workers who were employed for more than 100 shifts of 4 hours or more at pressures above 17 pounds per square inch gauge (psig) in the Seattle, Lake City Sewer Tunnel. The incidence of decompression sickness severe enough to cause the workers to demand treatment was a little over one-half percent. At pressures between 30 and 34 pounds, the incidence was 1.7%.[15] These figures seem low, but experience in Milwaukee and elsewhere has shown that probably the majority of cases of decompression sickness are not reported because the workers fear dismissal if treated too often for decompression sickness. Generally, cases are reported only when they cause very severe pain or are incapcitating.

Sealey's follow-up investigation of dysbaric osteonecrosis in 83 of the 105 Seattle workers involved revealed only five subjects with osteonecrosis, four of whom unexpectedly showed shaft lesions of aseptic necrosis in the proximal third of the left tibia. One case was bilateral in the tibias and one case had a lesion in the distal one-third of the right humerus. Shaft lesions, although caused by inadequate decompression, are usually considered medically unimportant and do not cause symptoms or functional disability. Sealey's conclusion was that the "Washington State Safety Standards for compressed air work appear to have prevented disability due to osteoarthritis up to 34 pounds per square inch gauge."[16]

Since that time the tables have been used on the San Francisco Bay Area Rapid Transit project (BART) at pressures up to 36 1/2 pounds per square inch gauge. Although a formal long term follow-up of these workers has not been conducted, no evidence of dysbaric osteonecrosis has appeared. However, Capt. A.R. Behnke, Medical Director of the BART project, was not satisfied with the tables when it came to the prevention of decompression sickness and stated in 1972:

> "In our experience, on the Bay Area Rapid Transit project at a pressure level of 30 psi approximately, in 29 shifts there was an incidence of decompression sickness which was in the range from 31 to 35%. At a given time we had as many as 8 men under treatment. At a pressure of 36 1/2 psi, 55 man shifts, there were 3 cases of bends - the incidence was 5 1/2%. I think we have enough evidence to indicate again that in the pressure range of 30 to 35 psi, the tables are wholly inadequate."[2]

The Washington State Decompression Schedules were adopted by the State of Wisconsin in August of 1970 and used at pressures ranging up to 44 pounds per square inch gauge until March of 1973.[11] During this time, the Milwaukee experience with decompression sickness paralleled closely that observed on the Bay Area Rapid Transit project. Using an anonymous system of reporting symptoms, it was found that up to 26% of a workshift suffered from decompression sickness.[9]

More important, however, it was discovered that on one contract in Wisconsin where pressures ranged between 28 and 44 pounds per square inch gauge, the Washington State Tables, which were adopted by OSHA as the federally enforced national code in 1971, produced severe aseptic necrosis.[11] Forty men were identified as having worked under the OSHA tables at pressures exceeding 35 pounds. Twenty of these were located and X-rayed. Seven were found to have abnormal bone scans, although their X-rays proved to be negative. Three of the men with positive X-ray lesions had severe juxta-articular disease in more than one joint. Three had juxta-articular disease in one joint and one had shaft lesions only. The conclusion was that the present use of OSHA enforced tables for decompression of compressed air tunnel workers leads to aseptic necrosis at pressures over 36 psig.[11]

Historically, the development of decompression schedules has been based on one or more empirical observations regarding the effects of decompression from given pressures and times of exposure. This is followed by the development of a mathematical hypothesis to describe what the researcher thinks is occurring in the body. From this, extrapolations are made for all exposure pressures and times to be included in the table and when the tables are tested, using

spot sampling of various time-pressure combinations.[5] If symptoms appear during or following decompression, empirical corrections are usually made by lengthening decompression stops, and the tables are then published. A concern with the present OSHA tables is that they had an insufficient data base before publication. In addition, because the OSHA tables have the force of law, contractors have been reluctant to make changes in their procedures.

In recent times, it has become more evident that even using naval diving schedules, probably less than optimal time is spent at the deeper decompression stops.[7,13] In the OSHA tables, most of the decompression time is spent at pressures less than four psig. Time spent at pressures less than 2 psig may total more than one hour for the deeper schedules. These pressures do little to suppress tissue bubble formation and are felt to contribute to bubble growth and gas trapping.[18]

Aside from the tables for saturation diving to deep depths, no other widely used or officially approved diving decompression tables use straight line, continuous decompressions at varying rates. Stage decompression is usually the rule, since it is simpler to control. Indeed, to follow the OSHA decompression schedules, expensive cam or tape-monitored decompression controllers must be used and are mandated by law. If stage decompressions to fixed pressures for fixed times are used, these expensive controllers would not be necessary.

The OSHA tables use a single decompression schedule for all exposures "over 8 hours." This means that if a foreman worked a double shift of 16 hours, he would decompress on an "over 8 hour" schedule. This latter schedule is only slightly longer than the decompression time for an 8 hour schedule, despite the fact that the exposure is a saturation exposure. Decompression from saturation on the presently prescribed OSHA tables is now recognized as potentially catastrophic.[18]

However, it should be noted that the originators of these tables had to develop a compromise between traditional tunnel decompression methods and a more physiologic approach in order to have the tables accepted by the contractors, unions and engineers.[6]

Development of Interim Decompression Tables

A 1969 report by Sealey[15], which showed a 6% incidence of dysbaric osteonecrosis shaft lesions, placed NIOSH and OSHA officers on alert for further problems with the OSHA tables. A grant was given by NIOSH to Dr. Eric Kindwall for study of these tables in a higher pressure range. His report[10] indicated a 35% rate of dysbaric osteonecrosis, with 86% of that being the disabling juxta-articular type.

As a result of the above reports, another NIOSH grant was given to Kindwall et al. at St., Lukes Hospital in Milwaukee, Wisconsin. This grant, which terminates in 1983, is to develop a set of caisson/tunneling decompression tables using the latest "state of the art" techniques. The tables that are developed would therefore be unlikely to be published until at least 1984. Since the initiation of caisson/tunneling projects in the USA is an infrequent event, there is no way of knowing how many workers might be injured or disabled by the current OSHA tables before the new tables are completed.

As a consequence of this hazard, NIOSH, with the cooperation of OSHA, requested a report from the Undersea Medical Society (UMS) entitled "A Study to Determine the Feasilibity for Developing Interim Decompression Schedules for Tunnel Workers."[18] This report was received on 4 September 1979 and indicated that interim tables could be derived that would probably protect the workers better than the current OSHA tables.

On July 25, 1980, Sea-Space Research Co. was given a contract by NIOSH to develop a new set of interim decompression tables. The new tables were generated on the AUTODEC computer system, which has been programmed under experimental and open-water field conditions over the past 15 years.

The AUTODEC data base includes both positive and negative results for air and mixed gas breathing mixtures under conditions ranging from no-decompression dives to total saturation exposures. Verification checks with this system against reliable manned test data have shown a highly satisfactory correlation between computer predictions and previously recorded results of commercial and military exposures.

AUTODEC has been used to predict decompression adequacy for air and mixed gas exposures in tables designed for divers and caisson workers and has been used to generate tables used in Naval programs.[18]

One of the problems with the computer-made tables is the length of time they require. Truly adequate decompression from prolonged exposures (several hours) even at modest pressures is time consuming and tunnel contractors may find safe but more lengthy decompression schedules difficult to accept economically. In some situations their length may be prohibitive. For this reason oxygen decompression tables were developed as a variant of the air tables (Tables G-3B). Oxygen tables have not previously been used in the U.S. for compressed air workers - presumably because of fire hazard. Today, however, improved demand-masks which automatically dump exhaled oxygen into an exhaust pipe exiting the chamber are available. With proper instruction and supervision, oxygen decompression can be safe and much more efficient.

For work situations requiring long-term hyperbaric exposure (over 8 hours), saturation decompression tables were also developed (Tables G-3C).

On August 8, 1980, the UMS, under contract from NIOSH, reviewed the tables developed by Sea Space Research Co. and issued a report entitled "Assessment of Proposed Interim Decompression Tables for Caisson & Tunnel Workers"[18]. This report approved the G-3B oxygen tables and the G-3C air saturation tables, but requested modifications be made to the G-3A air tables. Therefore, the G-3A tables were further modified in accordance with the wishes of the committee, to be at least equal in total decompression time to the present OSHA schedules. Thus, the G-3A (modified) tables provide no shorter decompression time under any circumstance except for a few very short exposures at shallow depths, which are well within "no decompression" limits, as shown on USN tables and documented in commercial experience.

The contractor also developed a fourth set of schedules labeled G-3A1. These schedules are based upon the most severe conditions which might be anticipated and under such conditions should produce a decompression sickness incidence that is significantly improved over current practice.

These G-3A1 schedules can therefore be used as a backup to the G-3A decompression sickness tables, and could be implemented should field experience indicate the need for more rigid decompression regimens.

These tables (G-3A, G-3A1, G-3B and G-3C) and instructions for their use comprise the Appendix to this report.

Conclusions

1. The G-3A Air Interim Decompression Tables should be required as a minimum for further caisson/tunnel work in the U.S. until laboratory tested tables are available.

2. The G-3A1 Air Interim Decompression Table should be used as a backup for the G-3A where environmental or individual conditions warrant.

3. The G-3B Oxygen Interim Decompression Tables should not be used unless the contractor is willing to obtain special training for the personnel involved and properly maintain the required oxygen equipment.

4. The G-3C Air Saturation Interim Decompression Table should be used whenever operational needs or emergencies required workers to remain under hyperbaric conditions for more than 8 hours. This table should provide safe decompression for workers confined to the caisson/tunnel for longer periods.

5. Records of any incidents of decompression illness, which are maintained by the physician assigned to the tunnel/caisson project, should continue to be sent to the national OSHA office, as required by 29 CFR Part 1926.803(6)(6).

References

1. Beckman, E.L., Elliot, D.H., Dysbarism Related Osteonecrosis HEW Publication (NIOSH) 75-153, 1974.

2. Behnke, A.R., Statement at Meeting on Decompression Schedules of the U.S. Occupational Safety and Health Act of 1970, Freeport, Grand Bahamas August 22, 1972.

3. Bert, P., La Pression Barometrique (Paris): G. Masson, 1878.

4. Bornstein, A. and E. Plate, Uber Chronische Glenkveranderungen, entstanden durch Presslufterkrankung, Fortschr, Ge. Roentgenstrahlen, 18: 197, 1911-12.

5. Boycott, A.E., G.C.C. Damant and J.S. Haldane; The Prevention of Compressed Air Illness Hour. of Hyg., Vol 8: 342-1908.

6. Duffner, G.J., Personal Communication, 1978.

7. Hills, B.A., Limited super-saturation versus phase equilibration in predicting occurrence of decompression sickness Clin. Sci., 38: 251-267 Feb. 1970.

8. Journal of the Society of the Arts, May 15, 1896.

9. Kindwall, E.P., Unpublished data, 1972.

10. Kindwall, E.P. Aseptic Necrosis Due to Occupational Exposure to Compressed Air: Experience with 62 Cases, Proc. of the 5th International Hyperbaric Cong. Vancouver, Canada, Aug, 1973, Simon Fraser Univ., Burnaby, Canada, 1974.

11. Kindwall, E.P., Summary Progress Report, Grant #OH 00659-02, Aug. 31, 1978.

12. Nellen, J.R. and E.P. Kindwall, Aseptic Necrosis of Bone Secondary to Occupational Exposure to Compressed Air, Radiologic Findings in 59 Cases, Am Journ. of Roentgenology, July 19, 1972.

13. Neuman, T.S., D.A. Hall and P.G. Linaweaver, Jr., Gas phase separation during decompression in man: Ultrasound monitoring, Undersea Biomedical Research, Vol. 3(2): 121-130, 1976.

14. Pol, B. and J. Watelle, Memoire Sur Les Effects de la Compression de L'Air Ann. D'Hyg, Pub, et de Med. Leg., (2d Ser.) 1: 241,1854.

15. Sealey, J.L, Safe Exit From the Hyperbaric Environment, Jour. of Occ. Med., vol II (5) 273-275, 1969.

16. Sealey, J.L, Terminal Progress Report, Grant #1 R01 OH 00448-1, Dec. 31, 1974.

17. Triger, M., Influence de L'air Comprime sur la Sante, Ann Hyg. G. Publ. (Paris) 33:463, 1845.

18. A Study to Determine the Feasibility for Developing Interim Decompression Schedules for Tunnel Workers-A Report to NIOSH, The Undersea Medical Society, Rockville, MD, September, 1979.

APPENDIX

INTERIM DECOMPRESSION TABLES FOR CAISSON/TUNNEL WORK

IN COMPRESSED AIR

Four different decompression tables are included in this appendix: Table G-3A, an air table for pressures in the range from 14 psi to 50 psi; Table G-3A1, a modified and conservative version of Table G-3A, to be used under the harshest decompression circumstances; Table G-3B1, an oxygen table to be used to decrease the total decompression time; and Table G-3C, an air saturation table to be used when pressure exposures are longer than eight hours.

The criteria and assumptions adopted as bases for the calculation of these tables were:

A. Each table should include schedules, calculated in 2 psig increments, for pressures in the range from 14 to 50 psig.

B. Each table was to include schedules, calculated for half-hour exposure increments, for exposures ranging from 30 minutes to eight hours.

C. A table permitting saturation from any pressure level from 14 to 50 psig should be developed.

D. A table permitting oxygen breathing during decompression should be developed.

E. The tables should be designed for use only at sea level pressure (which means they could not be used at altitudes above 800 to 1000 feet above sea level).

F. The tables were calculated on the assumption that temperature in the tunnel/caisson would be a minimum of 60 degrees Farenheit.

G. Table calculations assume that each worker has been exposed for at least four successive days, for 7 1/2 to 8 1/2 hours each day, to the same pressure. This assumption is necessary in order for the calculations to take any residual nitrogen in the workers' tissues into account.

H. The table calculations assume that each worker is exposed to pressure only for one shift in any 24-hour period.

I. The tables were to use staged, rather than continuous, ascent.

J. Stage decompression should be calculated in 4-psi increments (except for saturation tables, which are calculated in 2-psi increments).

K. Maximum rate of ascent to the initial stop was assumed to be 4 psi/min.

L. The air breathed during the bottom interval (the work period) and during the decompression was assumed to be 79.5% nitrogen, except for that portion of the decompression carried out on the oxygen table, and which occurred after oxygen breathing was initiated.

M. It was assumed that the level of carbon dioxide in the air breathed would not exceed 0.5% surface equivalent, and that other gases or contaminants would not be present in significant amounts.

N. For the oxygen table, oxygen breathing was assumed to begin at a maximum depth of 30 psi when the initial decompression stop occurs at pressures greater than 20 psi; when the initial stop occurs at pressures less than 20 psi, oxygen breathing was assumed to begin upon arrival at the second decompression stop. The tables were calculated assuming a 5-min stop (stage) before the beginning of oxygen breathing, to permit workers to don and fit their oxygen masks..

O. Calculations assumed that exposed workers would fall in the "susceptible" group in terms of sensitivity to pressure-related injury and illness; this assumption will ensure that the tables are conservative. The "susceptible" group would include all but the most susceptible one percent of the exposed population.

P. Calculations assumed that workers would work at a "moderate" rate, i.e., a workload equivalent to approximately 50 percent of the work produced by chamber subjects instructed to make a "maximum effort."

Q. Calculations for sleep cycles were included only when pressure exposures exceeded 16 or 19 hours. Workers being decompressed on the saturation table would be permitted to sleep for eight hours at whatever time coincided with regular sleep/wake cycles. The saturation table instructions include procedures for adding sleep time to the table.

Instructions for Use of the Interim Decompression Tables

1. Follow all schedules as provided without changes or modifications.

2. Exposure time is given as the time from initial pressurization to the time the worker starts "ascent" to the initial stop.

3. Pressure is given as the maximum pressure to which the worker is exposed.

4. Always use the table which provides for or exceed the pressure and exposure conditions. DO NOT INTERPOLATE BETWEEN TABLES. If either pressure or exposure exceeds a given table condition, go to the next deeper and/or longer table.

5. If exceptionally cold conditions exist go to the next deeper schedule.

6. If exceptionally heavy work is required go to the next longer table.

7. If both exceptionally heavy work and exceptionally cold conditions are encountered go to the next longer AND deeper schedule.

8. Always reduce pressure to the first stop as prescribed by the table.

9. If a delay occurs during depressurization to the initial stop, add the time in excess of the prescribed ascent time to the total exposure time and apply the proper table for this exposure.

10. If the ascent time is accidentally shortened, hold the worker(s) at 4 psi deeper than the initial stop (on air). When sufficient time has elapsed so that one additional minute will bring the worker(s) to the schedule's initial stop, continue the final minute of ascent at that point.

11. All ascents between stops and from the final stop to the surface are to be made at a rate of 4 psi per minute (except for the total saturation schedule which requires a rate of 2 psi per minute).

12. Time for ascent to the initial stop, ascent between stops, and from the final stop to the surface is not included in the time to be spent at stops.

13. For oxygen tables, the time indicated for oxygen breathing is started when all workers have started breathing oxygen by mask.

14. If desired, air breathing periods on the oxygen tables may be extended at and below 12 psi; THEY MAY NOT, HOWEVER, BE EXTENDED FOR HIGHER PRESSURES OR SHORTENED UNDER ANY CONDITIONS.

15. If it is not possible to complete an oxygen table for any reason, continue decompression on air. If the total required oxygen breathing period has not been completed at a given pressure level, continue with air breathing until the total time (air plus oxygen) breathing at that level is equal to the prescribed air decompression time for that stop and continue decompression with air as required by the air decompression table.

16. ONCE AN AIR DECOMPRESSION SCHEDULE HAS BEEN STARTED OR A SWITCH HAS BEEN MADE FROM AN OXYGEN TABLE TO AN AIR TABLE (AS PROVIDED FOR BY PARAGRAPH 15) IT IS NOT POSSIBLE TO SWITCH TO AN OXYGEN TABLE AND THE REMAINDER OF THE DECOMPRESSION MUST BE CARRIED OUT WITH AIR BREATHING.

17. Workers are only permitted to sleep during the prescribed sleep cycles and it is recommended that they get as much sleep during that period as possible up to a maximum of eight hours. In the case of saturation exposures, the subject should be allowed to sleep at whatever point the schedule coincides with the subject's normal sleep cycle, and the time spent asleep is added to the prescribed time in the table.

18. To enter the saturation table at depths less than 42 psi reduce the pressure by 2 psi in one minute and then proceed to the next lower pressure level in one minute provided by the table and decompress according to the schedule provided.

TABLE G-3A - INTERIM (AIR)

DEPTH psi	TOB hrs.	ASCENT TO 1st. stop	(D E C O M P R E S S I O N 36	32	28	24	20	16	12	S T O P S) 8	4	TOTAL TIME hrs.	min.
14	5.5	4										0	4
14	6.0	3									5	0	9
14	6.5	3									10	0	14
14	7.0	3									15	0	19
14	7.5	3									20	0	24
14	8.0	3									30	0	34
16	5.0	3									13	0	17
16	5.5	3									21	0	25
16	6.0	3									29	0	33
16	6.5	3									37	0	41
16	7.0	2								5	40	0	49
16	7.5	2								5	48	0	57
16	8.0	2								5	56	1	5
18	3.5	4									9	0	14
18	4.0	4									12	0	17
18	4.5	4									28	0	33
18	5.0	3								5	38	0	48
18	5.5	3								5	46	0	56
18	6.0	3								5	53	1	3
18	6.5	3								5	61	1	11
18	7.0	3								5	69	1	19
18	7.5	3								5	77	1	27
18	8.0	3								5	85	1	35
20	1.5	5										0	5
20	2.0	4									10	0	15
20	2.5	4									14	0	19
20	3.0	3								5	18	0	28
20	3.5	3								5	28	0	38
20	4.0	3								5	33	0	43
20	4.5	3								5	43	0	53
20	5.0	3								5	53	1	3
20	5.5	3								5	58	1	8
20	6.0	3								5	63	1	13
20	6.5	3								10	67	1	22
20	7.0	3								15	70	1	30
20	7.5	3								20	80	1	45
20	8.0	3								30	100	2	15

Lines indicate limit of standard workshift.

TABLE G-3 A - INTERIM (AIR)

DEPTH psi	TOB hrs.	ASCENT TO 1st stop	(D E C O M P R E S S I O N 36	32	28	24	20	16	12	S T O P S) 8	4	TOTAL TIME hrs.	min.
22	1.5	5									10	0	16
22	2.0	5									18	0	24
22	2.5	4								5	20	0	31
22	3.0	4								5	27	0	38
22	3.5	4								5	42	0	53
22	4.0	4								5	57	1	8
22	4.5	4								10	65	1	21
22	5.0	4								10	77	1	33
22	5.5	4								15	84	1	45
22	6.0	4								20	90	1	56
22	6.5	4								30	120	2	36
22	7.0	4								40	120	2	46
22	7.5	4								50	150	3	26
22	8.0	4								60	180	4	6
24	1.0	0										0	6
24	1.5	5									17	0	23
24	2.0	4								5	16	0	27
24	2.5	4								5	29	0	40
24	3.0	4								5	41	0	52
24	3.5	4								10	56	1	12
24	4.0	4								20	66	1	32
24	4.5	4								20	79	1	45
24	5.0	4								25	86	1	57
24	5.5	4								30	106	2	22
24	6.0	4								40	120	2	46
24	6.5	4								50	150	3	26
24	7.0	4								60	180	4	6
24	7.5	3							15	60	180	4	21
24	8.0	3							30	60	240	5	36

Lines indicate limit of standard workshift.

TABLE G-3$_A$ - INTERIM (AIR)

DEPTH psi	TOB hrs.	ASCENT TO 1st stop	(D 36	E C O M P R E S S I O N 32	28	24	20	16	S T O P S) 12	8	4	TOTAL TIME hrs.	min.
26	1.0	7										0	7
26	1.5	5								5	17	0	29
26	2.0	5								5	22	0	34
26	2.5	5								10	39	0	56
26	3.0	5								15	47	1	9
26	3.5	5								15	65	1	27
26	4.0	5								20	77	1	44
26	4.5	5								30	86	2	3
26	5.0	4							5	30	100	2	22
26	5.5	4							10	30	120	2	47
26	6.0	4							15	40	150	3	32
26	6.5	4							20	50	180	4	17
26	7.0	4							30	60	240	5	37
26	7.5	4							45	60	240	5	52
26	8.0	4							60	60	300	7	7
28	0.5	7										0	7
28	1.0	6									16	0	23
28	1.5	5								5	19	0	31
28	2.0	5								5	29	0	41
28	2.5	5								10	53	1	10
28	3.0	5								15	76	1	38
28	3.5	5								20	85	1	52
28	4.0	5								30	90	2	7
28	4.5	4							5	30	120	2	42
28	5.0	4							10	40	150	3	27
28	5.5	4							15	45	180	4	7
28	6.0	4							20	60	210	4	57
28	6.5	4							30	70	240	5	47
28	7.0	4							45	90	300	7	22
28	7.5	3						15	60	90	360	8	52
28	8.0	3						30	60	90	360	9	7

Lines indicate limit of standard workshift.

TABLE G-3A - INTERIM (AIR)

DEPTH psi	TOB hrs.	ASCENT TO 1st stop	(D E C O M P R E S S I O N 36	32	28	24	20	16	S T O P S) 12	8	4	TOTAL TIME hrs.	min.
30	0.5	8										0	8
30	1.0	6								5	15	0	28
30	1.5	6								5	25	0	38
30	2.0	5							5	10	39	1	2
30	2.5	5							5	20	51	1	24
30	3.0	5							5	30	62	1	45
30	3.5	5							10	40	69	2	7
30	4.0	5							10	40	90	2	28
30	4.5	5							15	45	120	3	8
30	5.0	5							20	60	150	3	58
30	5.5	5							30	90	180	5	8
30	6.0	5							45	90	240	6	23
30	6.5	5							60	120	240	7	8
30	7.0	4						15	60	120	360	9	23
30	7.5	4						30	60	120	360	9	38
30	8.0	4						60	60	150	660*	15	38
32	0.5	8										0	8
32	1.0	6								5	22	0	35
32	1.5	6								10	42	1	0
32	2.0	6								20	57	1	25
32	2.5	5							5	30	69	1	52
32	3.0	5							10	30	90	2	18
32	3.5	5							15	30	120	2	53
32	4.0	5							20	40	150	3	38
32	4.5	5							30	60	180	4	38
32	5.0	4						5	30	70	210	5	23
32	5.5	4						10	30	90	240	6	18
32	6.0	4						15	45	100	300	7	48
32	6.5	4						20	60	120	360	9	28
32	7.0	4						30	60	150	420	11	8
32	7.5	3					15	30	60	180	660*	15	53
32	8.0	3					30	60	60	180	720*	17	38

* Includes eight hour sleeping cycle (total time on air)

Lines indicate limit of standard workshift.

TABLE G-3A - INTERIM (AIR)

DEPTH psi	TOB hrs.	ASCENT TO 1st stop	(DECOMPRESSION STOPS) 36	32	28	24	20	16	12	8	4	TOTAL TIME hrs.	mins.
34	0.5	9										0	9
34	1.0	7								5	25	0	39
34	1.5	6							5	15	30	0	59
34	2.0	6							5	20	59	1	38
34	2.5	6							10	30	76	2	5
34	3.0	6							15	40	90	2	34
34	3.5	6							20	40	120	3	9
34	4.0	6							30	50	150	3	59
34	4.5	5						5	30	90	180	5	14
34	5.0	5						10	40	90	240	6	29
34	5.5	5						15	45	120	300	8	9
34	6.0	5						20	60	150	360	9	59
34	6.5	5						30	60	180	420	11	39
34	7.0	4					15	30	60	240	660*	16	54
34	7.5	4					30	30	70	240	660*	17	19
34	8.0	4					60	60	60	240	720*	19	9
36	0.5	9										0	9
36	1.0	7								10	25	0	44
36	1.5	6							5	20	30	1	4
36	2.0	6							10	30	64	1	53
36	2.5	6							20	40	74	2	23
36	3.0	6							30	45	90	2	54
36	3.5	5						5	30	60	120	3	44
36	4.0	5						10	30	80	180	5	9
36	4.5	5						15	30	90	240	6	24
36	5.0	5						20	45	120	300	8	14
36	5.5	5						30	60	150	360	10	9
36	6.0	4					10	30	60	180	420	11	49
36	6.5	4					20	30	70	240	660*	17	9
36	7.0	4					30	45	80	240	660*	17	44
36	7.5	3				15	30	60	80	300	660*	19	14
36	8.0	3				30	60	60	100	300	660*	20	19

* Includes eight hour sleeping cycle (total time on air)

Lines indicate limit of standard workshift.

TABLE G-3A - INTERIM (AIR)

DEPTH psi	TOB hrs.	ASCENT TO 1st stop	(DECOMPRESSION STOPS) 36	32	28	24	20	16	12	8	4	TOTAL TIME hrs.	mins.
38	0.5	10										0	10
38	1.0	8								15	24	0	49
38	1.5	7							10	20	33	1	13
38	2.0	7							15	30	73	2	8
38	2.5	6						5	20	40	97	2	52
38	3.0	6						10	30	45	120	3	35
38	3.5	6						15	30	70	180	5	5
38	4.0	6						20	30	120	240	7	0
38	4.5	6						30	45	120	300	8	25
38	5.0	5					5	30	60	150	360	10	15
38	5.5	5					10	30	70	180	420	12	0
38	6.0	5					20	30	90	240	660*	17	30
38	6.5	5					30	30	120	240	660*	18	10
38	7.0	4				15	30	60	120	240	660*	18	55
38	7.5	4				30	30	60	120	300	660*	20	10
38	8.0	4				60	60	60	120	360	720*	23	10
40	0.5	9									5	0	15
40	1.0	7							5	15	20	0	50
40	1.5	7							15	20	39	1	24
40	2.0	6						5	15	40	73	2	23
40	2.5	6						10	30	45	90	3	5
40	3.0	6						15	30	60	120	3	55
40	3.5	6						20	40	90	180	5	40
40	4.0	6						30	45	120	240	7	25
40	4.5	5					10	30	60	150	360	10	20
40	5.0	5					20	30	70	180	420	12	10
40	5.5	5					30	30	90	240	660*	17	40
40	6.0	4				10	30	30	120	240	660*	18	20
40	6.5	4				20	30	30	150	240	660*	19	0
40	7.0	4				30	30	60	150	240	720*	20	40
40	7.5	3			15	30	30	60	180	300	720*	22	25
40	8.0	3			30	60	60	60	180	600*	480	24	40

* Includes eight hour sleeping cycle (total time on air)

Lines indicate limit of standard workshift.

TABLE G-3A - INTERIM (AIR)

DEPTH psi	TOB hrs.	ASCENT TO 1st stop	(DECOMPRESSION STOPS) 36	32	28	24	20	16	12	8	4	TOTAL TIME hrs.	min.
42	0.5	10									10	0	21
42	1.0	8							10	15	20	0	56
42	1.5	7						5	15	20	51	1	42
42	2.0	7						10	15	30	78	2	24
42	2.5	7						20	30	45	90	3	16
42	3.0	7						30	30	70	150	4	51
42	3.5	6					5	30	40	90	240	6	56
42	4.0	6					10	30	60	120	240	7	51
42	4.5	6					20	30	90	150	360	11	1
42	5.0	6					30	30	90	180	660*	16	41
42	5.5	5				10	30	45	120	240	660*	18	36
42	6.0	5				20	30	60	120	240	660*	19	1
42	6.5	5				30	30	60	150	300	660*	20	41
42	7.0	4			15	30	30	70	180	300	720*	22	36
42	7.5	4			30	30	30	90	180	360	720*	24	11
42	8.0	4			60	60	60	90	180	600*	480	25	41
44	0.5	9								5	10	0	26
44	1.0	8							15	15	23	1	4
44	1.5	7						10	15	30	52	1	58
44	2.0	7						15	15	45	68	2	34
44	2.5	6					5	20	30	60	120	4	6
44	3.0	6					10	30	45	90	180	6	6
44	3.5	6					20	30	60	120	240	8	1
44	4.0	6					30	30	60	150	300	9	41
44	4.5	5				10	30	30	90	180	660*	16	51
44	5.0	5				20	30	40	120	240	660*	18	41
44	5.5	5				30	30	45	150	240	660*	19	26
44	6.0	4			10	30	30	60	150	300	660*	20	51
44	6.5	4			20	30	30	70	180	300	720*	22	41
44	7.0	4			30	30	30	90	180	360	720*	24	11
44	7.5	3		15	30	30	60	90	240	600*	480	25	56
44	8.0	3		30	60	60	60	90	240	600*	480	27	11

Lines indicate limit of standard workshift.

* Includes eight hour sleeping cycle (total time on air)

TABLE G-3A - INTERIM (AIR)

DEPTH psi	TOB hrs.	ASCENT TO 1st stop	(D E C O M P R E S S I O N S T O P S) 36	32	28	24	20	16	12	8	4	TOTAL TIME hrs.	min.
46	0.5	10								10	10	0	32
46	1.0	8						5	15	15	30	1	17
46	1.5	8						15	15	30	67	2	19
46	2.0	7					5	15	20	45	90	3	7
46	2.5	7					10	20	40	60	120	4	22
46	3.0	7					20	30	45	90	180	6	17
46	3.5	7					30	30	60	120	240	8	12
46	4.0	6				10	30	30	70	150	360	11	2
46	4.5	6				20	30	40	90	180	660*	17	12
46	5.0	6				30	30	45	120	240	660*	18	57
46	5.5	5			10	30	30	60	150	240	720*	20	52
46	6.0	5			20	30	30	90	180	300	720*	23	2
46	6.5	5			30	30	30	120	180	360	720*	24	42
46	7.0	4		15	30	30	45	120	240	600*	480	26	12
46	7.5	4		30	30	30	60	120	240	600*	480	26	42
46	8.0	4		60	60	60	60	120	240	600*	480	28	12
48	0.5	9							5	10	10	0	37
48	1.0	8						10	15	15	30	1	22
48	1.5	7					10	15	15	30	62	2	24
48	2.0	7					20	20	30	60	120	4	22
48	2.5	7					30	30	45	90	180	6	27
48	3.0	6				10	30	30	60	120	240	8	22
48	3.5	6				20	30	30	60	150	300	10	2
48	4.0	6				30	30	40	90	180	420	13	22
48	4.5	5			10	30	30	45	120	180	720*	19	7
48	5.0	5			20	30	30	60	150	240	720*	21	2
48	5.5	5			30	30	30	70	180	300	720*	22	52
48	6.0	4		10	30	30	30	90	180	360	720*	24	22
48	6.5	4		20	30	30	45	120	240	540*	480	25	17
48	7.0	4		30	30	30	60	120	240	600*	480	26	42
48	7.5	3	15	30	30	30	60	150	240	600*	480	27	27
48	8.0	3	30	60	60	60	60	150	540*	420	480	31	12

Lines indicate limit of standard workshift.

* Includes eight hour sleeping cycle (total time on air)

TABLE G-3A - INTERIM (AIR)

DEPTH psi	TOB hrs.	ASCENT TO 1st stop	(D	E	C	O	M	P	R	E	S	S	I	O	N	S	T	O	P	S)	TOTAL TIME hrs.	min.
			36		32		28	24		20		16		12		8		4				
50	0.5	10												10		10		10			0	43
50	1.0	9										15		15		15		30			1	28
50	1.5	8								20		20		20		30		61			2	44
50	2.0	8								30		30		30		60		120			4	43
50	2.5	7						10		30		30		45		90		180			6	38
50	3.0	7						20		30		30		60		120		240			8	33
50	3.5	7						30		30		30		70		150		360			11	23
50	4.0	6					10	30		30		40		90		180		420			13	33
50	4.5	6					20	30		30		60		120		240		720*			20	33
50	5.0	6					30	30		30		70		150		300		720*			22	23
50	5.5	5			10		30	30		30		90		180		360		720*			24	23
50	6.0	5			20		30	30		40		120		180		360		720*			25	13
50	6.5	5			30		30	30		60		120		240		600*		480			26	43
50	7.0	4	15		30		30	30		60		150		240		600*		480			27	28
50	7.5	4	30		30		30	40		60		180		540*		420		480			30	23
50	8.0	4	60		60		60	60		60		180		540*		420		480			32	13

Lines indicate limit of standard workshift.

*Includes eight hour sleeping cycle (total time on air)

G-3A1 (AIR) TABLES

DEPTH	TIME	ASCENT to 1st	(DECOMPRESSION STOPS)										TOTAL TIME	
psi	hrs.	stop	40	36	32	28	24	20	16	12	8	4	hrs.	min.
12	7.5	3											0	3
12	8.0	2										10	0	13
14	4.5	4											0	4
14	5.0	3										10	0	14
14	5.5	3										20	0	24
14	6.0	3										30	0	34
14	6.5	3										40	0	44
14	7.0	3										45	0	49
14	7.5	3										50	0	54
14	8.0	3										60	1	4
16	3.0	4											0	4
16	3.5	3										5	0	9
16	4.0	3										20	0	24
16	4.5	3										40	0	44
16	5.0	3										50	0	54
16	5.5	3										70	1	14
16	6.0	3										80	1	24
16	6.5	3										80	1	24
16	7.0	2									5	80	1	29
16	7.5	2									5	90	1	39
16	8.0	2									5	100	1	49
18	2.5	5											0	5
18	3.0	4										15	0	20
18	3.5	4										40	0	45
18	4.0	4										60	1	5
18	4.5	4										80	1	25
18	5.0	4										90	1	35
18	5.5	3									5	90	1	40
18	6.0	3									5	100	1	50
18	6.5	3									5	110	2	0
18	7.0	3									5	120	2	10
18	7.5	3									5	140	2	30
18	8.0	3									5	150	2	40

G-3A1 (AIR) TABLES

DEPTH	TIME	ASCENT to 1st.	(DECOMPRESSION STOPS)										TOTAL TIME	
psi	hrs.	stop	40	36	32	28	24	20	16	12	8	4	hrs.	min.
20	2.0	5											0	5
20	2.5	4										20	0	25
20	3.0	3									5	40	0	50
20	3.5	3									5	60	1	10
20	4.0	3									5	80	1	30
20	4.5	3									5	100	1	50
20	5.0	3									5	110	2	0
20	5.5	3									5	120	2	10
20	6.0	3									5	140	2	30
20	6.5	3									15	140	2	40
20	7.0	2								5	40	150	3	20
20	7.5	2								5	45	150	3	25
20	8.0	2								5	50	180	4	0
22	1.5	6											0	6
22	2.0	5										15	0	21
22	2.5	4									5	40	0	51
22	3.0	4									5	60	1	11
22	3.5	4									5	90	1	41
22	4.0	4									5	110	2	1
22	4.5	4									10	120	2	16
22	5.0	4									15	150	2	51
22	5.5	3								5	40	150	3	21
22	6.0	3								5	50	150	3	31
22	6.5	3								5	60	180	4	11
22	7.0	3								5	70	180	4	21
22	7.5	3								5	80	180	4	31
22	8.0	3								5	90	180	4	41

G-3A1 (AIR) TABLES

DEPTH	TIME	ASCENT to 1st	(D E C O M P R E S S I O N S T O P S)										TOTAL TIME	
psi	hrs.	stop	40	36	32	28	24	20	16	12	8	4	hrs.	min.
24	1.0	6											0	6
24	1.5	5										10	0	16
24	2.0	4									5	30	0	41
24	2.5	4									5	60	1	11
24	3.0	4									5	90	1	41
24	3.5	4									10	120	2	16
24	4.0	3								5	30	150	3	11
24	4.5	3								5	40	150	3	21
24	5.0	3								5	60	180	4	11
24	5.5	3								5	70	180	4	21
24	6.0	3								5	80	180	4	31
24	6.5	3								5	90	180	4	41
24	7.0	3								5	100	180	4	51
24	7.5	2							5	5	120	240	6	16
24	8.0	2							5	5	120	240	6	16
26	0.5	7											0	7
26	1.0	6										5	0	12
26	1.5	5									5	10	0	22
26	2.0	5									5	40	0	52
26	2.5	5									5	80	1	32
26	3.0	4								5	15	140	2	47
26	3.5	4								5	40	150	3	22
26	4.0	4								5	60	150	3	42
26	4.5	4								5	70	150	3	52
26	5.0	4								5	90	180	4	42
26	5.5	4								5	100	180	4	52
26	6.0	3							5	15	100	180	5	7
26	6.5	3							5	30	120	210	6	12
26	7.0	3							5	30	120	240	6	42
26	7.5	3							5	40	120	240	6	52
26	8.0	3							5	45	120	300	7	57

G-3A1 (AIR) TABLES

DEPTH	TIME	ASCENT to 1st.	(DECOMPRESSION STOPS)										TOTAL TIME	
psi	hrs.	stop	40	36	32	28	24	20	16	12	8	4	hrs.	min.
28	0.5	7											0	7
28	1.0	6										10	0	17
28	1.5	5									5	30	0	42
28	2.0	5									5	60	1	12
28	2.5	4								5	15	120	2	27
28	3.0	4								5	40	120	2	52
28	3.5	4								5	60	150	3	42
28	4.0	4								5	80	150	4	2
28	4.5	4								10	90	180	4	47
28	5.0	3							5	20	100	180	5	12
28	5.5	3							5	30	120	210	6	12
28	6.0	3							5	40	120	240	6	52
28	6.5	3							5	60	120	240	7	12
28	7.0	3							5	60	150	240	7	42
28	7.5	2						5	5	70	150	300	8	57
28	8.0	2						5	5	70	150	360	9	57
30	0.5	8											0	8
30	1.0	6									5	10	0	23
30	1.5	6									5	40	0	53
30	2.0	5								5	10	70	1	33
30	2.5	5								5	30	120	2	43
30	3.0	5								5	60	120	3	13
30	3.5	5								10	70	150	3	58
30	4.0	4							5	20	90	160	4	43
30	4.5	4							5	30	120	180	5	43
30	5.0	4							5	40	120	210	6	23
30	5.5	4							5	60	120	240	7	13
30	6.0	4							5	70	150	240	7	53
30	6.5	4							5	80	150	240	8	3
30	7.0	3						5	5	90	150	300	9	18
30	7.5	3						5	5	90	150	360	10	18
30	8.0	3						5	15	100	180	*540	14	8

*Includes 8 hrs. sleeping time.

G-3A1 (AIR) TABLES

DEPTH	TIME	ASCENT to 1st.	(D E C O M P R E S S I O N S T O P S)										TOTAL TIME	
psi	hrs.	stop	40	36	32	28	24	20	16	12	8	4	hrs.	min.
32	0.5	8											0	8
32	1.0	6									5	15	0	28
32	1.5	5								5	5	45	1	3
32	2.0	5								5	20	80	1	53
32	2.5	5								5	45	120	2	58
32	3.0	4							5	15	60	150	3	58
32	3.5	4							5	20	90	150	4	33
32	4.0	4							5	40	120	180	5	53
32	4.5	4							5	50	120	210	6	33
32	5.0	4							5	70	120	240	7	23
32	5.5	3						5	10	80	150	240	8	13
32	6.0	3						5	15	90	150	240	8	28
32	6.5	3						5	20	100	150	300	9	43
32	7.0	3						5	30	120	150	360	11	13
32	7.5	2					5	5	40	120	180	*600	15	58
32	8.0	2					5	5	40	120	180	*660	16	58
34	0.5	9											0	9
34	1.0	7									5	20	0	34
34	1.5	6								5	10	60	1	24
34	2.0	6								5	30	120	2	44
34	2.5	5							5	10	60	150	3	54
34	3.0	5							5	30	70	150	4	24
34	3.5	5							5	40	100	180	5	34
34	4.0	5							5	60	120	180	6	14
34	4.5	5							10	70	120	240	7	29
34	5.0	4						5	20	80	150	240	8	24
34	5.5	4						5	30	90	150	240	8	44
34	6.0	4						5	40	100	150	300	10	4
34	6.5	4						5	45	100	180	360	11	39
34	7.0	3					5	5	60	120	180	*600	16	19
34	7.5	3					5	10	60	120	180	*660	17	24
34	8.0	3					5	15	60	120	210	*660	17	59

*Includes 8 hrs. sleeping time.

G-3A1 (AIR) TABLES

DEPTH	TIME	ASCENT to 1st.	(DECOMPRESSION STOPS)										TOTAL TIME	
psi	hrs.	stop	40	36	32	28	24	20	16	12	8	4	hrs.	min.
36	0.5	9											0	9
36	1.0	6								5	5	20	0	39
36	1.5	6								5	20	60	1	34
36	2.0	5							5	10	40	120	3	4
36	2.5	5							5	20	60	150	4	4
36	3.0	5							5	40	80	180	5	14
36	3.5	5							10	60	100	180	5	59
36	4.0	4						5	15	70	120	210	7	9
36	4.5	4						5	30	80	120	240	8	4
36	5.0	4						5	40	90	150	240	8	54
36	5.5	4						5	45	100	150	300	10	9
36	6.0	3					5	5	60	120	150	360	11	49
36	6.5	3					5	10	70	120	180	*600	16	34
36	7.0	3					5	15	70	120	210	*660	18	9
36	7.5	3					5	20	80	120	240	*660	18	54
36	8.0	2				5	5	20	90	120	240	*660	19	9
38	0.5	8										10	0	19
38	1.0	7								5	10	25	0	50
38	1.5	6							5	5	20	80	.2	0
38	2.0	6							5	15	60	120	3	30
38	2.5	6							5	30	70	150	4	25
38	3.0	5						5	10	45	100	180	5	50
38	3.5	5						5	20	60	120	210	7	5
38	4.0	5						5	30	70	120	240	7	55
38	4.5	5						5	50	90	150	240	9	5
38	5.0	5						5	60	100	150	300	10	25
38	5.5	4					5	10	60	120	180	300	11	25
38	6.0	4					5	15	70	120	180	360	12	40
38	6.5	4					5	20	90	120	240	*600	18	5
38	7.0	3				5	5	30	100	120	240	*660	19	30
38	7.5	3				5	10	30	120	120	240	*660	19	55
38	8.0	3				5	15	40	120	120	300	*660	21	10

*Includes 8 hrs. sleeping time.

G-3A1 (AIR) TABLES

DEPTH	TIME	ASCENT to 1st.	(DECOMPRESSION STOPS)										TOTAL TIME	
psi	hrs.	stop	40	36	32	28	24	20	16	12	8	4	hrs.	min.
40	0.5	8									5	10	0	25
40	1.0	7								5	10	30	0	55
40	1.5	6							5	10	30	80	2	15
40	2.0	6							5	20	60	120	3	35
40	2.5	5						5	10	40	80	150	4	55
40	3.0	5						5	20	60	120	180	6	35
40	3.5	5						5	30	70	120	210	7	25
40	4.0	5						5	45	90	150	240	9	0
40	4.5	4					5	10	60	90	150	300	10	25
40	5.0	4					5	20	60	120	150	300	11	5
40	5.5	4					5	30	80	120	180	360	13	5
40	6.0	3				5	5	40	80	120	210	*600	17	50
40	6.5	3				5	10	40	90	120	240	*660	19	35
40	7.0	3				5	15	45	90	150	240	*660	20	15
40	7.5	3				5	20	45	100	150	240	*720	21	30
40	8.0	2			5	5	30	60	120	150	300	*720	23	20
42	0.5	9									5	15	0	31
42	1.0	7							5	5	10	40	1	11
42	1.5	6						5	5	10	30	90	2	31
42	2.0	6						5	5	30	60	150	4	21
42	2.5	6						5	15	40	100	150	5	21
42	3.0	6						5	30	60	120	180	6	46
42	3.5	6						10	40	80	120	240	8	21
42	4.0	5					5	15	60	90	150	240	9	31
42	4.5	5					5	30	60	100	150	300	10	56
42	5.0	5					5	40	80	120	180	360	13	16
42	5.5	4				5	5	40	90	120	180	*600	17	31
42	6.0	4				5	5	50	90	120	240	*660	19	41
42	6.5	4				5	10	60	90	150	240	*660	20	26
42	7.0	3			5	5	15	60	100	150	300	*660	21	46
42	7.5	3			5	5	20	70	120	150	300	*720	23	21
42	8.0	3			5	5	30	70	120	180	*540	480	24	1

*Includes 8 hrs. sleeping time..

G-3A1 (AIR) TABLES

DEPTH	TIME	ASCENT to 1st.	(				D E C O M P R E S S I O N			S T O P S		)	TOTAL TIME	
psi	hrs.	stop	40	36	32	28	24	20	16	12	8	4	hrs.	min.
44	0.5	8								5	5	15	0	36
44	1.0	7							5	10	15	45	1	26
44	1.5	6						5	10	10	40	120	3	16
44	2.0	6						5	10	40	60	150	4	36
44	2.5	6						5	30	40	120	150	5	56
44	3.0	5					5	10	40	60	120	210	7	36
44	3.5	5					5	15	45	90	150	240	9	16
44	4.0	5					5	30	60	90	150	300	10	46
44	4.5	4				5	10	30	80	120	150	360	12	46
44	5.0	4				5	10	40	90	120	180	*600	17	36
44	5.5	4				5	10	50	90	120	210	*660	19	16
44	6.0	3			5	10	15	60	90	150	240	*660	20	41
44	6.5	3			5	10	15	80	90	150	300	*660	22	1
44	7.0	3			5	10	20	80	120	150	300	*720	23	36
44	7.5	3			5	10	30	80	120	180	300	*720	24	16
44	8.0	2		5	10	15	30	80	120	210	*540	540	26	1
46	0.5	9								5	10	15	0	42
46	1.0	8							5	10	15	50	1	32
46	1.5	7						5	10	15	45	120	3	27
46	2.0	6					5	10	10	40	70	150	4	57
46	2.5	6					5	10	30	60	120	180	6	57
46	3.0	6					5	15	40	80	120	240	8	32
46	3.5	6					5	30	60	90	150	240	9	47
46	4.0	5				5	10	40	70	100	180	300	11	57
46	4.5	5				5	10	45	80	120	180	360	13	32
46	5.0	5				5	15	60	90	120	210	*600	18	32
46	5.5	4			5	10	20	70	90	150	240	*660	20	57
46	6.0	4			5	10	30	70	90	150	240	*720	22	7
46	6.5	4			5	10	30	80	100	180	300	*660	22	57
46	7.0	3		5	10	15	40	80	120	180	300	*720	24	42
46	7.5	3		5	10	15	40	80	120	210	*600	480	26	12
46	8.0	3		5	10	15	50	90	120	240	*600	480	27	2

*Includes 8 hrs. sleeping time.

G-3A1 (AIR) TABLES

DEPTH	TIME	ASCENT to 1st	(				D E C O M P R E S S I O N			S T O P S		)	TOTAL TIME	
psi	hrs.	stop	40	36	32	28	24	20	16	12	8	4	hrs.	min.
48	0.5	8							5	5	10	15	0	47
48	1.0	7						5	10	10	15	60	1	52
48	1.5	6					5	10	15	15	60	120	3	57
48	2.0	6					5	10	15	40	100	150	5	32
48	2.5	6					5	15	40	60	120	180	7	12
48	3.0	5				5	10	20	45	90	120	240	9	2
48	3.5	5				5	10	40	60	90	150	240	10	7
48	4.0	5				5	15	40	80	120	180	300	12	32
48	4.5	4			5	5	15	60	80	120	180	360	13	57
48	5.0	4			5	5	30	60	90	150	240	*660	20	52
48	5.5	4			5	10	30	80	90	150	240	*720	22	17
48	6.0	3		5	5	10	40	80	100	180	240	*720	23	12
48	6.5	3		5	5	10	60	80	120	180	*540	480	24	52
48	7.0	3		5	10	15	60	80	120	210	*540	540	26	32
48	7.5	3		5	10	15	70	80	150	240	*540	540	27	42
48	8.0	2	5	5	10	15	70	90	150	240	*600	540	28	57
50	0.5	9							5	5	10	20	0	53
50	1.0	8						5	10	10	20	70	2	8
50	1.5	7					5	10	15	20	60	150	4	33
50	2.0	7					5	10	30	50	120	150	6	18
50	2.5	6				5	5	15	40	60	120	210	7	48
50	3.0	6				5	10	30	60	90	150	240	9	58
50	3.5	6				5	15	40	70	100	150	300	11	33
50	4.0	5			5	5	20	50	80	120	180	360	13	53
50	4.5	5			5	5	30	60	90	120	210	*600	18	53
50	5.0	5			5	5	40	70	90	150	240	*660	21	13
50	5.5	4		5	5	10	45	80	100	150	300	*660	22	48
50	6.0	4		5	5	15	60	80	120	180	*540	480	24	58
50	6.5	4		5	5	20	70	80	120	180	*540	540	26	13
50	7.0	3	5	5	10	20	70	90	120	240	*600	480	27	33
50	7.5	3	5	5	10	30	70	90	150	240	*600	540	29	13
50	8.0	3	5	5	10	40	70	120	150	*480	360	540	29	53

*Includes 8 hrs. sleeping time.

C-3B1 (OXYGEN) TABLES

DEPTH	TIME	ASCENT to 1st	(DECOMPRESSION STOPS)									TOTAL TIME	
psi	hrs.	stop	40	36	32	28	24	20	16	12	8	4	hrs.	min.
12	7.5	3											0	3
12	8.0	2										5/ 5	0	13
14	4.5	4											0	4
14	5.0	3										5/ 5	0	14
14	5.5	3										5/10	0	19
14	6.0	3										5/10	0	19
14	6.5	3										5/15	0	24
14	7.0	3										5/20	0	29
14	7.5	3										5/25	0	34
14	8.0	3										5/30	0	39
16	3.0	4											0	4
16	3.5	3										5/ 0	0	9
16	4.0	3										5/10	0	19
16	4.5	3										5/15	0	24
16	5.0	3										5/20	0	29
16	5.5	3										5/30	0	39
16	6.0	3										5/30	0	39
16	6.5	3										5/30	0	39
16	7.0	2									5/ 0	0/30	0	39
16	7.5	2									5/ 0	0/40	0	49
16	8.0	2									5/ 0	0/40	0	49
18	2.5	5											0	5
18	3.0	4										5/10	0	20
18	3.5	4										5/15	0	25
18	4.0	4										5/25	0	35
18	4.5	4										5/30	0	40
18	5.0	4										5/35	0	45
18	5.5	3									5/ 0	0/40	0	50
18	6.0	3									5/ 0	0/40	0	50
18	6.5	3									5/ 0	0/45	0	55
18	7.0	3									5/ 0	0/45	0	55
18	7.5	3									5/ 0	0/50	1	0
18	8.0	3									5/ 0	0/60	1	10

G-3B1 (OXYGEN) TABLES

DEPTH	TIME	ASCENT to 1st	(D E C O M P R E S S I O N S T O P S)									TOTAL TIME	
psi	hrs.	stop	40	36	32	28	24	20	16	12	8	4	hrs.	min.
20	2.0	5											0	5
20	2.5	4										5/10	0	20
20	3.0	3									5/ 0	0/15	0	25
20	3.5	3									5/ 0	0/25	0	35
20	4.0	3									5/ 0	0/30	0	40
20	4.5	3									5/ 0	0/40	0	50
20	5.0	3									5/ 0	0/45	0	55
20	5.5	3									5/ 0	0/50	1	0
20	6.0	3									5/ 0	0/50	1	0
20	6.5	3									15/ 0	0/60	1	20
20	7.0	2								5/ 0	0/15	5/50	1	20
20	7.5	2								5/ 0	0/15	0/60	1	25
20	8.0	2								5/ 0	0/20	0/60	1	30
22	1.5	6											0	6
22	2.0	5										15/ 0	0	21
22	2.5	4									5/ 0	0/15	0	26
22	3.0	4									5/ 0	0/25	0	36
22	3.5	4									5/ 0	0/35	0	46
22	4.0	4									5/ 0	0/45	0	56
22	4.5	4									10/ 0	0/50	1	6
22	5.0	4									15/ 0	0/50	1	11
22	5.5	3								5/ 0	0/15	5/50	1	21
22	6.0	3								5/ 0	0/20	5/50	1	26
22	6.5	3								5/ 0	0/25	5/60	1	41
22	7.0	3								5/ 0	0/25	5/60	1	41
22	7.5	3								5/ 0	0/30	5/60	1	46
22	8.0	3								5/ 0	0/30	5/70	1	56

G-3B1 (OXYGEN) TABLES

DEPTH	TIME	ASCENT to 1st	(D E C O M P R E S S I O N S T O P S)										TOTAL TIME	
psi	hrs.	stop	40	36	32	28	24	20	16	12	8	4	hrs.	min.
24	1.0	6											0	6
24	1.5	5										10/ 0	0	16
24	2.0	4									5/ 0	0/10	0	21
24	2.5	4									5/ 0	0/20	0	31
24	3.0	4									5/ 0	0/35	0	46
24	3.5	4									10/ 0	0/45	1	1
24	4.0	3								5/ 0	0/10	0/50	1	11
24	4.5	3								5/ 0	0/15	0/50	1	16
24	5.0	3								5/ 0	0/20	5/50	1	26
24	5.5	3								5/ 0	0/25	5/60	1	41
24	6.0	3								5/ 0	0/30	5/60	1	46
24	6.5	3								5/ 0	0/35	5/60	1	51
24	7.0	3								5/ 0	0/40	5/60	1	56
24	7.5	2							5/ 0	0/ 5	0/35	10/70	2	11
24	8.0	2							5/ 0	0/ 5	0/60	5/60	2	21
26	0.5	7											0	7
26	1.0	6										5/ 0	0	12
26	1.5	5									5/ 0	0/ 5	0	17
26	2.0	5									5/ 0	0/20	0	32
26	2.5	5									5/ 0	0/30	0	42
26	3.0	4								5/ 0	0/10	0/40	1	2
26	3.5	4								5/ 0	0/15	5/45	1	17
26	4.0	4								5/ 0	0/20	5/50	1	27
26	4.5	4								5/ 0	0/25	5/50	1	32
26	5.0	4								5/ 0	0/35	5/50	1	42
26	5.5	4								5/ 0	0/40	5/60	1	57
26	6.0	3							5/ 0	0/ 5	0/40	5/60	2	2
26	6.5	3							5/ 0	0/10	0/40	5/70	2	17
26	7.0	3							5/ 0	0/10	0/45	5/70	2	22
26	7.5	3							5/ 0	0/15	5/60	5/60	2	37
26	8.0	3							5/ 0	0/20	5/60	5/70	2	52

G-3B1 (OXYGEN) TABLES

DEPTH	TIME	ASCENT to 1st	(DECOMPRESSION STOPS)										TOTAL TIME	
psi	hrs.	stop	40	36	32	28	24	20	16	12	8	4	hrs.	min.
28	0.5	7											0	7
28	1.0	6										10/ 0	0	17
28	1.5	5									5/ 0	0/10	0	22
28	2.0	5									5/ 0	0/30	0	42
28	2.5	4								5/ 0	0/10	0/30	0	52
28	3.0	4								5/ 0	0/15	0/45	1	12
28	3.5	4								5/ 0	0/20	5/50	1	27
28	4.0	4								5/ 0	0/30	5/50	1	37
28	4.5	4								10/ 0	0/40	5/50	1	52
28	5.0	3							5/ 0	0/10	0/40	5/50	1	57
28	5.5	3							5/ 0	0/10	0/45	5/60	2	12
28	6.0	3							5/ 0	0/15	5/40	5/70	2	27
28	6.5	3							5/ 0	0/20	5/40	5/70	2	32
28	7.0	3							5/ 0	0/25	5/60	5/60	2	47
28	7.5	2						5/ 0	0/ 5	0/20	5/60	5/70	2	57
28	8.0	2						5/ 0	0/ 5	5/50	5/60	5/60	3	22
30	0.5	8											0	8
30	1.0	6									5/ 0	0/ 5	0	18
30	1.5	6									5/ 0	0/15	0	28
30	2.0	5								5/ 0	0/ 5	0/30	0	48
30	2.5	5								5/ 0	0/15	0/40	1	8
30	3.0	5								5/ 0	0/20	5/45	1	23
30	3.5	5								10/ 0	0/30	5/45	1	38
30	4.0	4							5/ 0	0/10	0/30	5/50	1	48
30	4.5	4							5/ 0	0/15	5/40	5/50	2	8
30	5.0	4							5/ 0	0/15	5/40	5/60	2	18
30	5.5	4							5/ 0	0/20	5/40	5/70	2	33
30	6.0	4							5/ 0	0/25	5/40	10/70	2	43
30	6.5	4							5/ 0	0/30	5/60	5/60	2	53
30	7.0	3						5/ 0	0/ 5	0/30	5/60	5/70	3	8
30	7.5	3						5/ 0	0/ 5	0/50	5/60	5/60	3	18
30	8.0	3						5/ 0	0/ 5	0/50	5/60	10/70	3	33

G-3B1 (OXYGEN) TABLES

DEPTH	TIME	ASCENT to 1st	(D E C O M P R E S S I O N S T O P S)										TOTAL TIME	
psi	hrs.	stop	40	36	32	28	24	20	16	12	8	4	hrs.	min.
32	0.5	8											0	8
32	1.0	6									5/ 0	0/ 5	0	18
32	1.5	5								5/ 0	0/ 5	0/15	0	33
32	2.0	5								5/ 0	0/10	0/25	0	48
32	2.5	5								5/ 0	0/20	0/40	1	13
32	3.0	4							5/ 0	0/ 5	0/25	5/45	1	33
32	3.5	4							5/ 0	0/10	0/30	5/45	1	43
32	4.0	4							5/ 0	0/15	5/35	5/50	2	3
32	4.5	4							5/ 0	0/20	5/40	5/60	2	23
32	5.0	4							5/ 0	0/25	5/40	5/60	2	28
32	5.5	3						5/ 0	0/ 5	0/25	5/40	5/70	2	43
32	6.0	3						5/ 0	0/ 5	0/30	5/60	5/60	2	58
32	6.5	3						5/ 0	0/10	0/50	5/60	5/60	3	23
32	7.0	3						5/ 0	0/10	0/50	5/60	5/70	3	33
32	7.5	2					5	0/ 5	0/40	5/50	5/60	5/60	4	3
32	8.0	2					5	0/ 5	0/40	5/50	5/60	5/70	4	13
34	0.5	9											0	9
34	1.0	7									5/ 0	0/10	0	24
34	1.5	6								5/ 0	0/ 5	0/20	0	39
34	2.0	6								5/ 0	0/15	0/35	1	4
34	2.5	5							5/ 0	0/ 5	0/20	5/40	1	24
34	3.0	5							5/ 0	0/10	0/30	5/45	1	44
34	3.5	5							5/ 0	0/15	5/35	5/50	2	4
34	4.0	5							5/ 0	0/20	5/40	5/50	2	14
34	4.5	5							5/ 0	0/25	5/40	5/60	2	29
34	5.0	4						5/ 0	0/10	0/25	5/40	5/70	2	49
34	5.5	4						5/ 0	0/10	0/35	5/40	10/70	3	4
34	6.0	4						5/ 0	0/15	5/30	5/60	5/70	3	24
34	6.5	4						5/ 0	0/20	5/50	5/60	5/70	3	49
34	7.0	3					5	0/ 5	0/40	5/50	5/60	5/60	4	4
34	7.5	3					5	0/35	5/40	5/50	5/60	5/60	4	39
34	8.0	3					5	0/35	5/40	5/50	5/60	5/70	4	49

G-3B1 (OXYGEN) TABLES

DEPTH	TIME	ASCENT to 1st	(D E C O M P R E S S I O N S T O P S)										TOTAL TIME	
psi	hrs.	stop	40	36	32	28	24	20	16	12	8	4	hrs.	min.
36	0.5	9											0	9
36	1.0	6								5/ 0	0/ 5	0/ 5	0	24
36	1.5	6								5/ 0	0/10	0/25	0	49
36	2.0	5							5/ 0	0/ 5	0/15	0/35	1	9
36	2.5	5							5/ 0	0/10	0/20	5/45	1	34
36	3.0	5							5/ 0	0/15	5/25	5/50	1	54
36	3.5	5							10/ 0	0/20	5/40	5/50	2	19
36	4.0	4						5/ 0	0/10	0/20	5/40	5/60	2	34
36	4.5	4						5/ 0	0/10	0/25	5/40	5/65	2	44
36	5.0	4						5/ 0	0/15	5/30	5/40	5/70	3	4
36	5.5	4						5/ 0	0/20	5/30	5/60	5/70	3	29
36	6.0	3					5	0/ 5	0/15	5/50	5/60	5/70	3	49
36	6.5	3					5	0/ 5	5/40	5/50	5/60	5/70	4	19
36	7.0	3					5	0/35	5/40	5/50	5/60	5/70	4	49
36	7.5	3					5	0/35	5/40	5/50	5/60	10/70	4	54
36	8.0	2				5	5	0/35	5/40	10/50	10/60	40/70	5	39
38	0.5	9										10/ 0	0	20
38	1.0	7								5/ 0	0/ 5	0/10	0	30
38	1.5	6							5/ 0	0/ 5	0/10	0/20	0	50
38	2.0	6							5/ 0	0/10	0/15	0/40	1	20
38	2.5	6							5/ 0	0/15	5/25	5/40	1	45
38	3.0	5						5/ 0	0/ 5	0/15	5/30	5/50	2	5
38	3.5	5						5/ 0	0/10	0/20	0/35	5/50	2	15
38	4.0	5						5/ 0	0/15	0/20	5/40	5/70	2	50
38	4.5	5						5/ 0	0/20	0/30	5/40	5/70	3	5
38	5.0	5						5/ 0	0/20	5/35	5/60	5/60	3	25
38	5.5	4					5	0/ 5	0/20	5/50	5/60	5/60	3	45
38	6.0	4					5	0/ 5	5/40	5/50	5/60	5/60	4	10
38	6.5	4					5	0/35	5/40	5/50	5/60	5/70	4	50
38	7.0	3				5	5	0/35	5/40	5/50	5/60	5/70	4	55
38	7.5	3				5	10	0/35	5/40	10/50	10/60	50/70	5	55
38	8.0	3				5	15	0/35	5/40	15/50	15/60	80/70	6	40

G-3B1 (OXYGEN) TABLES

DEPTH	TIME	ASCENT to 1st	(D E C O M P R E S S I O N S T O P S)										TOTAL TIME	
psi	hrs.	stop	40	36	32	28	24	20	16	12	8	4	hrs.	min.
40	0.5	8									5/ 0	0/ 5	0	20
40	1.0	7								5/ 0	0/ 5	0/15	0	35
40	1.5	6							5/ 0	0/ 5	0/10	0/30	1	0
40	2.0	6							5/ 0	0/10	0/20	5/40	1	30
40	2.5	5						5/ 0	0/ 5	0/15	5/25	5/40	1	50
40	3.0	5						5/ 0	0/10	0/15	5/35	5/50	2	15
40	3.5	5						5/ 0	0/15	5/20	5/35	5/60	2	40
40	4.0	5						5/ 0	0/20	5/25	5/40	5/70	3	5
40	4.5	4					5	0/ 5	0/20	5/30	5/40	5/70	3	15
40	5.0	4					5	0/10	0/20	5/30	5/60	10/70	3	45
40	5.5	4					5	0/10	0/25	5/50	5/60	5/70	4	5
40	6.0	3				5	5	0/10	0/40	5/50	5/60	5/70	4	25
40	6.5	3				5	10	0/35	5/40	5/50	5/60	20/70	5	15
40	7.0	3				5	15	0/35	5/40	10/50	10/60	60/70	6	10
40	7.5	3				5	20	0/35	5/40	15/50	15/60	90/70	6	55
40	8.0	2			5	5	30	0/35	5/40	20/50	20/60	150/70	8	20
42	0.5	9									5/ 0	0/ 5	0	21
42	1.0	7							5/ 0	0/ 5	0/ 5	0/15	0	41
42	1.5	6						5/ 0	0/ 5	0/ 5	0/10	0/30	1	6
42	2.0	6						5/ 0	0/ 5	0/10	0/25	5/40	1	41
42	2.5	6						5/ 0	0/10	0/15	5/25	5/50	2	6
42	3.0	6						5/ 0	0/15	5/20	5/30	5/50	2	26
42	3.5	6						10/ 0	0/15	5/30	5/40	5/60	3	1
42	4.0	5					5	0/ 5	0/20	5/30	5/40	5/70	3	16
42	4.5	5					5	0/10	0/20	5/30	5/45	30/70	3	51
42	5.0	5					5	0/15	5/20	5/35	5/60	20/70	4	11
42	5.5	4				5	5	0/15	5/25	5/50	5/60	10/70	4	26
42	6.0	4				5	5	0/35	5/40	5/50	5/60	5/70	4	56
42	6.5	4				5	10	0/35	5/40	10/50	10/60	60/70	6	6
42	7.0	3			5	5	15	0/35	5/40	15/50	15/60	100/70	7	6
42	7.5	3			5	5	20	0/35	5/40	20/50	20/60	150/70	8	11
42	8.0	3			5	5	30	0/35	5/40	30/50	30/60	200/70	9	31

G-3B1 (OXYGEN) TABLES

DEPTH	TIME	ASCENT to 1st	(D E C O M P R E S S I O N S T O P S)										TOTAL TIME	
psi	hrs.	stop	40	36	32	28	24	20	16	12	8	4	hrs.	min.
44	0.5	8								5/ 0	0/ 5	0/ 5	0	26
44	1.0	7							5/ 0	0/ 5	0/ 5	0/15	0	41
44	1.5	6						5/ 0	0/ 5	0/ 5	5/15	5/30	1	21
44	2.0	6						5/ 0	0/ 5	0/15	5/20	5/40	1	46
44	2.5	6						5/ 0	0/ 5	0/10	0/20	5/30	1	26
44	3.0	5					5	0/ 5	0/15	5/20	5/35	5/50	2	36
44	3.5	5					5	0/10	0/15	5/25	5/40	5/60	3	1
44	4.0	5					5	0/10	0/20	5/30	5/40	5/70	3	21
44	4.5	4				5	10	0/15	5/20	5/35	5/60	5/70	4	6
44	5.0	4				5	10	0/15	5/30	5/50	5/60	5/70	4	31
44	5.5	4				5	10	0/35	5/40	5/50	5/60	5/60	4	51
44	6.0	3			5	10	15	0/35	5/40	10/50	10/60	60/70	6	21
44	6.5	3			5	10	15	0/35	5/40	15/50	15/60	100/70	7	11
44	7.0	3			5	10	20	0/35	5/40	20/50	20/60	150/70	8	16
44	7.5	3			5	10	30	0/35	5/40	30/50	30/60	200/70	9	36
44	8.0	2		5	10	15	30	45/35	45/40	45/50	45/60	720/ 0	19	16
46	0.5	9								5/ 0	0/ 5	0/ 5	0	27
46	1.0	8							5/ 0	0/ 5	0/10	0/15	0	47
46	1.5	7						5/ 0	0/ 5	0/ 5	0/20	5/30	1	22
46	2.0	6					5	0/ 5	0/ 5	0/15	5/20	5/45	1	57
46	2.5	6					5	0/ 5	0/10	0/20	5/30	5/50	2	22
46	3.0	6					5	0/10	0/15	5/20	5/40	5/60	2	57
46	3.5	6					5	0/10	0/20	5/25	5/40	5/70	3	17
46	4.0	5				5	10	0/15	5/20	5/30	5/60	5/70	4	2
46	4.5	5				5	10	0/20	5/20	5/50	5/60	5/70	4	27
46	5.0	5				5	15	0/35	5/40	5/50	5/60	5/70	5	7
46	5.5	4			5	10	20	0/35	5/40	10/50	10/60	50/70	6	17
46	6.0	4			5	10	30	0/35	5/40	15/50	15/60	90/70	7	17
46	6.5	4			5	10	30	0/35	5/40	20/50	20/60	150/70	8	27
46	7.0	3		5	10	15	40	0/35	5/40	30/50	30/60	200/70	10	2
46	7.5	3		5	10	15	40	45/35	45/40	45/50	45/60	720/ 0	19	27
46	8.0	3		5	10	15	50	60/35	60/40	60/50	60/60	720/ 0	20	37

G-3B1 (OXYGEN) TABLES

DEPTH	TIME	ASCENT to 1st	(					D E C O M P R E S S I O N		S T O P S		)	TOTAL TIME	
psi	hrs.	stop	40	36	32	28	24	20	16	12	8	4	hrs.	min.
48	0.5	8							5/ 0	0/ 5	0/ 5	0/ 5	0	32
48	1.0	7						5/ 0	0/ 5	0/ 5	0/15	0/20	1	2
48	1.5	6					5	0/ 5	0/ 5	0/ 5	5/20	5/35	1	37
48	2.0	6					5	0/ 5	0/ 5	0/15	5/25	5/50	2	7
48	2.5	6					5	0/ 5	0/15	5/20	5/30	5/50	2	32
48	3.0	5				5	10	0/10	0/15	5/25	5/40	5/60	3	12
48	3.5	5				5	10	0/15	5/15	5/30	5/40	5/70	3	37
48	4.0	5				5	15	0/15	5/25	5/30	5/60	5/70	4	12
48	4.5	4			5	5	15	0/20	5/40	5/50	5/60	5/60	4	47
48	5.0	4			5	5	30	0/35	5/40	10/50	10/60	10/70	5	42
48	5.5	4			5	10	30	0/35	5/40	15/50	15/60	90/70	7	17
48	6.0	3		5	5	10	40	0/35	5/40	20/50	20/60	120/75	8	17
48	6.5	3		5	5	10	60	0/35	5/40	30/50	30/60	180/70	9	52
48	7.0	3		5	10	15	60	45/35	45/40	45/50	45/60	720/ 0	19	47
48	7.5	3		5	10	15	70	60/35	60/40	60/50	60/60	720/ 0	20	57
48	8.0	2	5	5	10	15	70	60/35	60/40	60/50	60/60	780/ 0	22	2
50	0.5	9							5/ 0	0/ 5	0/ 5	0/10	0	38
50	1.0	8						5/ 0	0/ 5	0/ 5	0/20	0/20	1	8
50	1.5	7					5	0/ 5	0/ 5	0/10	0/20	5/35	1	38
50	2.0	7					5	0/ 5	0/10	0/15	5/25	5/50	2	13
50	2.5	6				5	5	0/10	0/15	5/15	5/35	5/60	2	53
50	3.0	6				5	10	0/10	0/20	5/25	5/40	5/70	3	28
50	3.5	6				5	15	0/15	5/20	5/35	5/60	5/60	4	3
50	4.0	5			5	5	20	0/20	5/25	5/50	5/60	5/60	4	38
50	4.5	5			5	5	30	0/35	5/40	10/50	10/60	10/70	5	43
50	5.0	5			5	5	40	0/35	5/40	15/50	15/60	60/70	6	53
50	5.5	4		5	5	10	45	0/35	5/40	20/50	20/60	120/70	8	18
50	6.0	4		5	5	15	60	0/35	5/40	30/50	30/60	180/70	9	58
50	6.5	4		5	5	20	70	45/35	45/40	45/50	45/60	720/ 0	19	58
50	7.0	3	5	5	10	20	70	60/35	60/40	60/50	60/60	720/ 0	21	8
50	7.5	3	5	5	10	30	70	60/35	60/40	60/50	60/60	780/ 0	22	18
50	8.0	3	5	5	10	40	70	60/35	60/40	60/50	540/ 0	300/70	22	38

TABLE G-3B (02)

DEPTH psi	TOB hrs.	ASCENT TO 1st. STOP	(D E C O M P R E S S I O N 12	S T O P S 8	4	) TOTAL TIME hrs.	min.
14	5.5	4				0	4
14	6.0	3			5	0	9
14	6.5	3			5	0	9
14	7.0	3			5	0	9
14	7.5	3			10	0	14
14	8.0	3			10	0	14
16	5.0	4				0	4
16	5.5	3			5	0	9
16	6.0	3			5	0	9
16	6.5	3			5	0	9
16	7.0	3			10	0	14
16	7.5	3			10	0	14
16	8.0	3			15	0	19
18	3.5	5				0	5
18	4.0	4			5	0	10
18	4.5	4			5	0	10
18	5.0	4			5	0	10
18	5.5	4			5	0	10
18	6.0	4			10	0	15
18	6.5	4			15	0	20
18	7.0	4			15	0	20
18	7.5	4			20	0	25
18	8.0	4			30	0	35
20	1.5	5				0	5
20	2.0	5				0	5
20	2.5	4			5	0	10
20	3.0	4			5	0	10
20	3.5	4			5	0	10
20	4.0	4			5	0	10
20	4.5	4			10	0	15
20	5.0	4			10	0	15
20	5.5	3		5	10	0	20
20	6.0	3		5	15	0	25
20	6.5	3		10	20	0	35
20	7.0	3		10	30	0	45
20	7.5	3		15	30	0	50
20	8.0	3		20	30	0	55

ALL TIMES ARE ON 100% OXYGEN.

TABLE G-3B (02)

DEPTH psi	TOB hrs.	ASCENT TO 1st. STOP	(D E C O M P R E S S I O N 12	8	S T O P S 4	) TOTAL TIME hrs.	min.
24	1.0	6			/	0	6
24	1.5	5			/5	0	11
24	2.0	5			/5	0	11
24	2.5	5			/10	0	16
24	3.0	5			/15	0	21
24	3.5	4		5	/15	0	26
24	4.0	4		5	/20	0	31
24	4.5	4		10	/20	0	36
24	5.0	4		10	/30	0	46
24	5.5	4		10	/45	1	1
24	6.0	4		10	/60	1	16
24	6.5	4		20	/60	1	26
24	7.0	4		20	/70	1	36
24	7.5	3	5	20	5/70	1	46
24	8.0	3	10	20	20/70	2	6
22	1.5	6			/	0	6
22	2.0	5			/5	0	11
22	2.5	5			/5	0	11
22	3.0	5			/5	0	11
22	3.5	5			/10	0	16
22	4.0	5			/15	0	21
22	4.5	4		5	/15	0	26
22	5.0	4		5	/20	0	31
22	5.5	4		5	/30	0	41
22	6.0	4		10	/40	0	56
22	6.5	4		10	/60	1	16
22	7.0	4		15	/60	1	21
22	7.5	4		15	/70	1	31
22	8.0	4		20	/70	1	36

Times to the left of the slash mark at 4 PSI are on air. Times to the right of the slash mark are on 100% oxygen. AT HIGHER PRESSURES ALL TIMES ARE ON 100% OXYGEN.

TABLE G-3B (02)

DEPTH psi	TOB hrs.	ASCENT TO 1st. STOP	(DECOMPRESSION STOPS 20	16	12	8	4)	TOTAL TIME hrs.	min.
28	0.5	7		/	/	/	/	0	7
28	1.0	6		/	/	/	/5	0	12
28	1.5	6		/	/	/	/10	0	17
28	2.0	5		/	/	/5	/10	0	22
28	2.5	5		/	/	/5	/15	0	27
28	3.0	5		/	/	/10	/20	0	37
28	3.5	5		/	/	/10	/30	0	47
28	4.0	5		/	/	/10	/40	0	57
28	4.5	4		/	/5	/10	/45	1	7
28	5.0	4		/	/5	/15	5/45	1	17
28	5.5	4		/	/5	/20	5/60	1	37
28	6.0	4		/	/10	/30	5/70	2	2
28	6.5	4		/	/15	/40	10/70	2	22
28	7.0	4		/	/15	/60	5/70	2	37
28	7.5	3		/5	/20	5/60	20/70	3	7
28	8.0	3		/10	/30	5/60	20/70	3	22
26	1.0	7			/	/	/	0	7
26	1.5	6			/	/	/5	0	12
26	2.0	6			/	/	/10	0	17
26	2.5	5			/	/5	/10	0	22
26	3.0	5			/	/5	/15	0	27
26	3.5	5			/	/5	/20	0	32
26	4.0	5			/	/10	/20	0	37
26	4.5	5			/	/10	/30	0	47
26	5.0	4			/5	/10	/40	1	2
26	5.5	4			/5	/10	/60	1	22
26	6.0	4			/5	/15	5/60	1	32
26	6.5	4			/10	/20	5/60	1	42
26	7.0	4			/10	/20	20/70	2	7
26	7.5	4			/15	/40	10/70	2	22
26	8.0	4			/20	/60	15/70	2	42

Times to the left of the slash mark are on air. Times to the right of the slash mark are on 100% oxygen.

TABLE G-3B (02)

DEPTH psi	TOB hrs.	ASCENT TO 1st. STOP	(D E C O M P R E S S I O N 20	16	12	S T O P S 8	4)	TOTAL TIME hrs.	min.
32	0.5	8	/	/	/	/	/	0	8
32	1.0	7	/	/	/	/	/10	0	18
32	1.5	6	/	/	/	/5	/15	0	28
32	2.0	6	/	/	/	/10	/15	0	33
32	2.5	5	/	/	/5	/10	/15	0	38
32	3.0	5	/	/	/5	/10	/30	0	53
32	3.5	5	/	/	/5	/15	/40	1	8
32	4.0	5	/	/	/10	/15	5/40	1	18
32	4.5	5	/	/	/15	/20	5/60	1	48
32	5.0	4	/	/5	/10	/30	5/70	2	8
32	5.5	4	/	/5	/10	/50	10/70	2	33
32	6.0	4	/	/10	/10	/60	5/70	2	43
32	6.5	4	/	/10	/50	5/60	5/70	3	28
32	7.0	4	/	/30	5/50	5/60	5/70	3	53
32	7.5	3	/5	/40	5/50	5/60	5/70	4	8
32	8.0	3	/15	5/40	5/50	5/60	20/70	4	38
30	0.5	8	/	/	/	/	/	0	8
30	1.0	7	/	/	/	/	/5	0	13
30	1.5	6	/	/	/	/5	/10	0	23
30	2.0	6	/	/	/	/5	/15	0	28
30	2.5	6	/	/	/	/10	/15	0	33
30	3.0	6	/	/	/	/10	/20	0	38
30	3.5	5	/	/	/5	/10	/30	0	53
30	4.0	5	/	/	/5	/15	/40	1	8
30	4.5	5	/	/	/5	/20	5/40	1	18
30	5.0	5	/	/	/10	/20	5/60	1	43
30	5.5	5	/	/	/10	/30	10/70	2	8
30	6.0	5	/	/	/15	5/40	20/70	2	38
30	6.5	5	/	/	/20	5/60	5/70	2	48
30	7.0	4	/	/5	/30	5/60	20/70	3	18
30	7.5	4	/	/10	/50	5/60	5/70	3	28
30	8.0	4	/	/30	5/50	5/60	20/70	4	8

Times to the left of the slash mark are on air. Times to the right of the slash mark are on 100% oxygen.

TABLE G-3B (02)

DEPTH psi	TOB hrs.	ASCENT TO 1st. STOP	(D E C O M P R E S S I O N 24	20	16	S T O P S 12	8	4)	TOTAL TIME hrs.	min.
36	0.5	9		/	/	/	/	/	0	9
36	1.0	7		/	/	/	/5	/10	0	24
36	1.5	6		/	/	/5	/10	/15	0	39
36	2.0	6		/	/	/5	/10	/20	0	44
36	2.5	6		/	/	/10	/10	/30	0	59
36	3.0	6		/	/	/10	/15	5/40	1	19
36	3.5	5		/	/5	/10	/20	5/50	1	39
36	4.0	5		/	/5	/15	5/30	5/60	2	9
36	4.5	5		/	/5	/15	5/40	10/70	2	34
36	5.0	5		/	/10	/15	5/60	5/70	2	54
36	5.5	5		/	/20	5/50	5/60	5/70	3	44
36	6.0	4		/5	/40	5/50	5/60	5/70	4	9
36	6.5	4		/15	5/40	5/50	5/60	20/70	4	39
36	7.0	4		/35	5/40	5/50	5/60	5/70	4	44
36	7.5	3	15	/35	5/40	5/50	5/60	60/70	5	54
36	8.0	3	30	/35	5/40	5/50	5/60	100/70	6	49
34	0.5	9		/	/	/	/	/	0	9
34	1.0	7		/	/	/	/5	/10	0	24
34	1.5	7		/	/	/	/10	/15	0	34
34	2.0	6		/	/	/5	/10	/15	0	39
34	2.5	6		/	/	/5	/10	/30	0	54
34	3.0	6		/	/	/5	/15	5/30	1	4
34	3.5	6		/	/	/10	/15	5/40	1	19
34	4.0	6		/	/	/15	/20	5/50	1	39
34	4.5	5		/	/5	/15	5/30	5/70	2	19
34	5.0	5		/	/5	/15	5/40	10/70	2	34
34	5.5	5		/	/5	/15	5/60	20/70	3	4
34	6.0	5		/	/10	/50	5/60	5/70	3	29
34	6.5	5		/	/30	5/50	5/60	20/70	4	9
34	7.0	4		/20	5/40	5/50	5/60	5/70	4	29
34	7.5	4		/35	5/40	5/50	5/60	5/70	4	44
34	8.0	4		/35	5/60	5/50	5/60	40/70	5	19

Maximum pressure for oxygen usage is 20 psi.
Times to the left of the slash mark are on air. Times to the right of the slash mark are on 100% oxygen.

TABLE G-3B (02)

DEPTH psi	TOB hrs.	ASCENT TO 1st. STOP	(D E C O M P R E S S I O N 28	24	S T O P S 20	16	12	8	4)	TOTAL TIME hrs.	min.
40	0.5	9			/	/	/	/	/5	0	15
40	1.0	7			/	/	/5	/10	/10	0	35
40	1.5	7			/	/	/10	/10	/15	0	45
40	2.0	6			/	/5	/10	/10	/20	0	55
40	2.5	6			/	/5	/10	/20	5/30	1	20
40	3.0	6			/	/5	/15	5/20	5/45	1	45
40	3.5	6			/	/10	/15	5/30	5/60	2	15
40	4.0	6			/	/10	/20	5/40	5/70	2	40
40	4.5	5			/5	/10	/30	5/60	5/70	3	15
40	5.0	5			/5	/40	5/50	5/60	5/70	4	10
40	5.5	5			/20	5/40	5/50	5/60	5/70	4	30
40	6.0	4		10	/35	5/40	5/50	5/60	20/70	5	10
40	6.5	4		20	/35	5/40	5/50	5/60	70/70	6	10
40	7.0	4		30	/35	5/40	5/50	5/60	120/70	7	10
40	7.5	3	15	30	40/35	40/40	40/50	40/60	140/70	10	10
40	8.0	3	30	60	60/35	60/40	60/50	60/60	600/0*	18	45
38	0.5	10			/	/	/	/	/	0	10
38	1.0	8			/	/	/	/10	/10	0	30
38	1.5	7			/	/	/5	/10	/15	0	40
38	2.0	7			/	/	/10	/10	/20	0	50
38	2.5	6			/	/5	/10	/10	/30	1	5
38	3.0	6			/	/5	/10	/20	5/40	1	30
38	3.5	6			/	/5	/15	5/30	5/60	2	10
38	4.0	6			/	/10	/15	5/30	5/70	2	25
38	4.5	6			/	/10	/15	5/40	20/70	2	50
38	5.0	5			/5	/10	/30	5/60	20/70	3	30
38	5.5	5			/5	/40	5/50	5/60	5/70	4	10
38	6.0	5			/35	5/40	5/50	5/60	5/70	4	45
38	6.5	5			/35	5/40	5/50	5/60	20/70	5	0
38	7.0	4		15	/35	5/40	5/50	5/60	70/70	6	5
38	7.5	4		30	/35	5/40	5/50	5/60	120/70	7	10
38	8.0	4		60	40/35	40/40	40/40	40/50	130/70	10	15

*Includes eight hour sleeping cycle (total time on air).

Maximum pressure for oxygen usage is 20 psi.
Times to the left of the slash mark are on air. Times to the right of the slash mark are on 100% oxygen.

TABLE G-3B (02)

DEPTH psi	TOB hrs.	ASCENT TO 1st. STOP	(D E C O M P R E S S I O N 32	28	24	20	16	S T O P S 12	8	4)	TOTAL hrs.	TI mi
44	0.5	9				/	/	/	/5	/5	0	2
44	1.0	8				/	/	/10	/10	/10	0	4
44	1.5	7				/	/5	/10	/10	/20	0	5
44	2.0	7				/	/10	/10	/10	/30	1	1
44	2.5	6				/5	/10	/10	/20	5/30	1	3
44	3.0	6				/5	/10	/15	5/30	5/60	2	2
44	3.5	6				/5	/10	/20	5/30	10/70	2	4
44	4.0	6				/10	/10	/50	5/60	5/70	3	4
44	4.5	5			10	/10	/40	5/50	5/60	5/70	4	2
44	5.0	5			20	/35	5/40	5/50	5/60	5/70	5	
44	5.5	5			30	/35	5/40	5/50	5/60	60/70	6	1
44	6.0	4		10	30	/35	5/40	5/50	5/60	120/70	7	2
44	6.5	4		20	30	/35	5/40	5/50	5/60	210/70	9	
44	7.0	4		30	30	/35	5/40	5/50	20/60	720/0*	16	4
44	7.5	3	15	30	30	40/35	40/40	40/50	40/60	720/0*	19	1
44	8.0	3	30	60	60	60/35	60/40	60/50	480/0*	240/70	20	5
42	0.5	10				/	/	/	/	/5	0	1
42	1.0	8				/	/	/10	/10	/10	0	4
42	1.5	7				/	/5	/10	/10	/15	0	5
42	2.0	7				/	/10	/10	/10	/20	1	
42	2.5	7				/	/10	/10	/30	5/30	1	3
42	3.0	7				/	/10	/15	5/20	5/45	1	5
42	3.5	6				/5	/10	/15	5/30	5/70	2	3
42	4.0	6				/5	/10	/30	5/40	10/70	3	
42	4.5	6				/10	/10	/30	5/60	30/70	3	4
42	5.0	6				/10	/40	5/50	5/60	5/70	4	1
42	5.5	5			10	/35	5/40	5/50	5/60	5/70	4	5
42	6.0	5			20	/35	5/40	5/50	5/60	70/70	6	1
42	6.5	5			30	/35	5/40	5/50	5/60	120/70	7	1
42	7.0	4		15	30	/35	5/40	5/50	5/60	210/70	8	5
42	7.5	4		30	30	40/35	40/40	40/50	40/60	660/0*	17	5
42	8.0	4		60	60	60/35	60/40	60/50	480/0*	200/70	19	4

*Includes eight hour sleeping cycle (total time on air).

Maximum pressure for oxygen usage is 20 psi.
Times to the left of the slash mark are on air. Times to the right of the slash mark are on 100% oxygen.

TABLE G-3B (02)

DEPTH psi	TOB hrs.	ASCENT TO 1st. STOP	(36	32	28	24	20	16	12	8	4	) TOTAL TIME hrs.	min.
48	0.5	9					/	/	/5	/5	/5	0	27
48	1.0	8					/	/5	/10	/10	/10	0	47
48	1.5	7					/5	/10	/10	/10	/20	1	7
48	2.0	7					/10	/10	/10	/15	/30	1	27
48	2.5	7					/10	/10	/10	/30	5/40	1	57
48	3.0	6				10	/10	/10	/20	5/30	5/70	2	52
48	3.5	6				20	/20	5/20	10/20	10/60	10/70	4	17
48	4.0	6				30	/30	5/30	5/30	5/60	20/70	4	57
48	4.5	5			10	30	/35	5/40	5/50	5/60	20/70	5	42
48	5.0	5			20	30	/35	5/40	5/50	5/60	90/70	7	2
48	5.5	5			30	30	/35	5/40	5/50	5/60	200/70	9	2
48	6.0	4		10	30	30	/35	5/40	5/50	20/60	240/70	10	7
48	6.5	4		20	30	30	/35	5/40	5/50	70/60	720/0*	17	57
48	7.0	4		30	30	30	/35	5/40	5/50	120/60	720/0*	18	57
48	7.5	3	15	30	30	30	40/35	40/40	40/50	120/60	720/0*	21	2
48	8.0	3	30	60	60	60	60/35	60/40	60/50	600/0*	240/70	23	57
46	0.5	10					/	/	/	/5	/5	0	22
46	1.0	8					/	/5	/10	/10	/10	0	47
46	1.5	8					/	/10	/10	/10	/20	1	2
46	2.0	7					/5	/10	/20	/20	/30	1	17
46	2.5	7					/5	/10	/10	/30	5/40	1	52
46	3.0	7					/10	/10	/15	5/30	5/60	2	27
46	3.5	7					/10	/10	/10	5/30	20/70	2	47
46	4.0	6				10	/10	/15	5/50	5/60	5/70	4	2
46	4.5	6				20	10/20	10/40	10/50	10/60	10/70	5	22
46	5.0	6				30	/35	5/40	5/50	5/60	40/70	5	52
46	5.5	5			10	30	/35	5/40	5/50	5/60	100/70	7	2
46	6.0	5			20	30	10/30	10/40	10/50	10/60	200/70	9	12
46	6.5	5			30	30	/35	5/40	5/50	20/60	240/70	9	57
46	7.0	4		15	30	30	/35	5/40	5/50	80/60	720/0*	18	2
46	7.5	4		30	30	30	40/35	40/40	40/50	60/60	720/0*	19	47
46	8.0	4		60	60	60	60/35	60/40	60/50	540/0*	240/70	22	27

*Includes eight hour sleeping cycle (total time on air).

Maximum pressure for oxygen usage is 20 psi.
Times to the left of the slash mark are on air. Times to the right of the slash mark are on 100% oxygen.

TABLE G-3B (02)

DEPTH psi	TOB hrs.	ASCENT TO 1st. STOP	(36	D E C O M P R E S S I O N 32	28	24	S T O P S 20	16	12	8	4	) TOTAL TI hrs.	mi
50	0.5	10					/	/	/5	/5	/5	0	2
50	1.0	9					/	/10	/10	/10	/10	0	5
50	1.5	8					/10	/10	/10	/10	/20	1	1
50	2.0	8					/10	/10	/10	/20	/30	1	3
50	2.5	7				10	/10	/10	/10	/30	5/60	2	2
50	3.0	7				20	/20	5/20	5/20	10/20	10/70	3	3
50	3.5	7				30	/30	5/30	10/30	10/60	10/70	4	5
50	4.0	6			10	30	/30	10/30	10/50	10/60	10/70	5	3
50	4.5	6			20	30	/35	15/40	15/50	15/60	60/70	6	3
50	5.0	6			30	30	/35	15/40	15/50	15/60	130/70	7	5
50	5.5	5		10	30	30	/35	15/40	15/50	15/60	240/70	9	5
50	6.0	5		20	30	30	/35	15/40	15/50	60/60	240/70	10	5
50	6.5	5		30	30	30	/35	15/40	15/50	120/60	720/0*	18	5
50	7.0	4	15	30	30	30	/35	15/40	30/50	150/60	720/0*	20	
50	7.5	4	30	30	30	30	40/35	40/40	40/50	660/0*	240/70	22	2
50	8.0	4	60	60	60	60	60/35	60/40	480/0*	170/60	250/70	24	3

*Includes eight hour sleeping cycle (total time on air).

Maximum pressure for oxygen usage is 20 psi.
Times to the left of the slash mark are on air. Times to the right of the slash mark are on 100% oxygen.

AUTODEC CAISSON SATURATION TABLE G-3C (AIR)

DEPTH PSI	TIME MIN.	BREATHING MIXTURE
50-44	2	AIR
44	90	AIR
42	90	AIR
40	90	AIR
38	90	AIR
36	90	AIR
34	90	AIR
32	90	AIR
30	90	AIR
28	90	AIR
26	90	AIR
24	120	AIR
22	120	AIR
20	120	AIR
18	120	AIR
16	120	AIR
14	180	AIR
12	180	AIR
10	180	AIR
8	240	AIR
6	240	AIR
4	240	AIR
2	240	AIR

Use ascent time of 1 psi per minute between stops and from final stop to surface
Ascent time is in addition to specified time at indicated levels

SEE ACCOMPANING TEXT FOR MANAGEMENT OF SLEEPING CYCLES