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DCIEM DIVING MANUAL: AIR DECOMPRESSION PROCEDURES AND TABLES

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DCIEM **DIVING** **MANUAL**

DCIEM DIVING MANUAL

AIR DECOMPRESSION PROCEDURES AND TABLES

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DEPARTMENT OF NATIONAL DEFENCE - CANADA

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TABLE OF CONTENTS

Section 1. Introduction

1. Background	1-1
2. Description of Decompression Tables	1-2
3. Definition of Terms	1-4
4. Dive Recording	1-6

Section 2. Decompression Procedures

1. Standard Air Decompression (Table 1)	1-7
2. Short Standard Air Decompression (Table	1-9
3. In-Water Oxygen Decompression (Table 2)	1-10
4. Short In-Water Oxygen Decompression (Table 2S)	1-13
5. Surface Decompression with Oxygen (Table 3)	1-14
6. Repetitive Diving Procedures (Tables 4A and 4B)..	1-17
For no-decompression repetitive dives	1-20
Finding the minimum SI for a No-D dive	1-22
For repetitive dives requiring decompression....	1-22
For Surface Intervals less than 15 minutes	1-23
Repetitive Group adjustments	1-24
7. Multi-Level Diving	1-26
8. Depth Corrections for Diving at Altitude (Table 5) ..	1-29

Section 3 - General Procedures

1. Descent/Ascent Rates	1-33
2. Variations in Rate of Ascent	1-33
3. Oxygen Related Problems	1-34
4. Omitted Decompression	1-37
5. Violation of 7 Minute Surface Interval (SurD O2)....	1-39

DCIEM DIVING MANUAL

6. Flying after Diving	1-40
7. Decompression Stress	1-40
Acknowledgements	1-42
References	1-43

Appendix A - DCIEM Air Diving Tables (Feet)

Table 1. Standard Air Decompression	1A - 3
Table 1S. Short Standard Air Decompression.....	1A-19
Table 2. In-Water Oxygen Decompression	1A-23
Table 2S. Short In-Water Oxygen Decompression..	1A-35
Table 3. Surface Decompression with Oxygen	1A-39
Table 4. Repetitive Diving	1A-53
A. Repetitive Factors/Surface Intervals Table	
B. No-Decompression Repetitive Diving	
Table 5. Depth Corrections for Diving at Altitude	1A-57

Appendix B - DCIEM Air Diving Tables (Metres)

Table 1. Standard Air Decompression	1B - 3
Table 1S. Short Standard Air Decompression	1B-19
Table 2. In-Water Oxygen Decompression	1B-23
Table 2S. Short In-Water Oxygen Decompression ..	1B-35
Table 3. Surface Decompression with Oxygen	1B-39
Table 4. Repetitive Diving	1B-53
A. Repetitive Factors/Surface Intervals Table	
B. No-Decompression Repetitive Diving	
Table 5. Depth Corrections for Diving at Altitude	1B-57

Appendix C - Worksheets

Repetitive Diving Worksheet (Feet)	1C - 3
Repetitive Diving Worksheet (Metres)	1C - 5

AIR DIVING TABLES

Altitude Diving Worksheet (Feet)	1C - 7
Altitude Diving Worksheet (Metres)	1C - 9
Dive Chart (Feet)	1C-11
Dive Chart (Metres)	1C-13

List of Figures

Figure 1. DCIEM Air Diving Limits	1-3
Figure 2. Standard Air Dive to 104 fsw/22 min	1-8
Figure 3. In-water O ₂ Dive to 73 fsw/58 min	1-12
Figure 4. Surface Decompression Dive	1-16
Figure 5. Repetitive Dive Flowchart	1-19
Figure 6. Repetitive Dive Worksheet	1-21
Figure 7. Multilevel Dive Example	1-28
Figure 8. Altitude Diving Worksheet	1-32

SECTION 1

INTRODUCTION

1. BACKGROUND

When compressed air is breathed at depth, the inert gas, nitrogen, diffuses into the various tissues of the body. Nitrogen diffusion continues at different rates for the various tissues as long as the partial pressure of the inspired nitrogen is greater than the partial pressure of the gas absorbed in the tissues. The amount of nitrogen absorbed increases with the partial pressure of the inspired nitrogen (depth) and the duration of the exposure (bottom time).

When the diver ascends, the process is reversed as the nitrogen partial pressure in the tissues exceeds that in the circulatory and respiratory systems. This pressure gradient from the tissues of the blood and lungs must be carefully controlled to prevent a too rapid diffusion of nitrogen. If the pressure gradient is uncontrolled, bubbles of nitrogen gas form in the tissues and blood which can result in the development of decompression sickness.

The set of air decompression tables presented here have been developed for Canadian Forces diving by the Experimental Diving Unit of the Defence and Civil Institute of Environmental Medicine (DCIEM). They are identical to those contained in the Canadian Forces Diving Manual [1]. The tables were derived from the DCIEM 1983 Decompression Model and are based on over 20 years of decompression research at DCIEM which began with the pioneering studies by Kidd and Stubbs in 1962 [2-5]. These tables provide a more conservative approach to decompression procedures than those currently published by the United States Navy [6] and the Royal Navy [7].

Selected profiles were tested extensively using the Doppler ultrasonic bubble detector as an aid to assessing the severity of the decompression stress [8] produced by these tables. Tests were conducted in a hyperbaric chamber with wet-working divers in cold water between 5 -10° Celsius as well as with dry-resting divers. No realistic decompression procedures can totally eliminate the occurrence of decompression sickness. However, these tables are believed to be safer than most existing tables.

2. DESCRIPTION OF DECOMPRESSION TABLES

The DCIEM Air Diving Tables consist of the following tables:

Table 1	Standard Air Decompression
Table 1S	Short Standard Air Decompression
Table 2	In-Water Oxygen Decompression
Table 2S	Short In-Water Oxygen Decompression
Table 3	Surface Decompression with Oxygen
Table 4A	Repetitive Factors/Surface Intervals
Table 4B	No-Decompression Repetitive Diving
Table 5	Depth Corrections for Diving at Altitude

Appendix A contains these tables in feet of seawater (fsw) and Appendix B contains these tables in metres of seawater (msw). Depths to 240 fsw (72 msw) are covered. In the procedures described here for the use of the tables, all depths will be given in both fsw and msw. However, examples illustrating the procedures will only be given in fsw.

The decompression schedules for all tables are given in 10 fsw (3 msw) increments. For Tables 1, 2, and 3 each depth segment is divided into two sections by a double line corresponding to the **Normal Air Diving Limit** (Figure 1). Dive profiles below this line are considered **Exceptional Exposures** and should be used only under exceptional circumstances and then only after careful

AIR DIVING TABLES

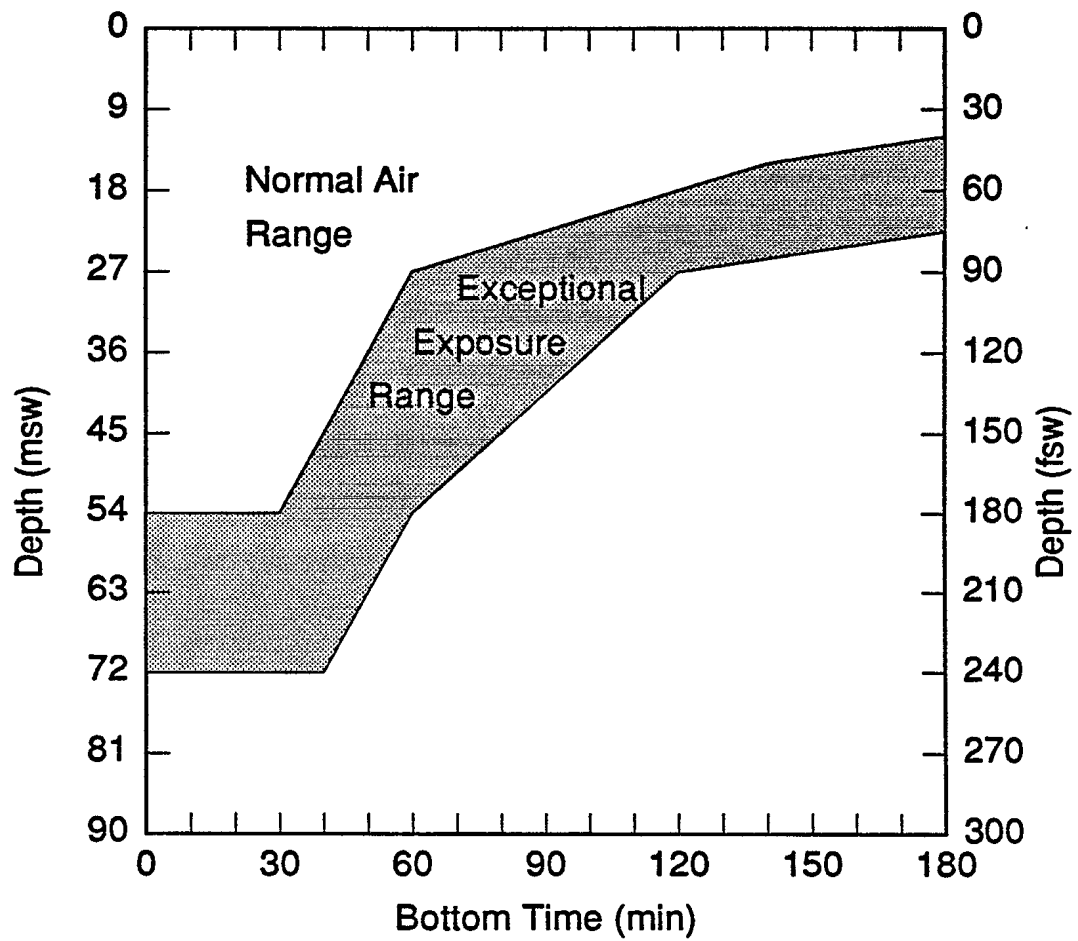


Figure 1. DCIEM Air Diving Limits

consideration of the potential consequences. Only Surface Decompression with Oxygen (SurD O₂) (with In-Water Oxygen Decompression as backup) should be considered for such exposures. After an Exceptional Exposure Dive, it is recommended that no diving be done for at least 18 hrs.

Tables 1S, 4A, 4B, and 5 have been adapted for recreational divers and are available on a plastic card as the "DCIEM Sport Diving Tables"¹. The four tables have been renamed as Tables A, B, C, and D, respectively, and include depths in both fsw and msw.

3. DEFINITION OF TERMS

a. ***Ascent Rate***

A specified rate of travel that the diver must maintain up to and between decompression stops. For these tables, the ascent rate is 60 ± 10 fsw/min (18 ± 3 msw/min);

b. ***Bottom Time (BT)***

The total elapsed time from when the diver leaves the surface to the time (next whole minute) that the diver begins to ascend, measured in minutes;

c. ***Decompression Schedule***

Specific decompression procedure for a given combination of depth and bottom time as listed in a decompression table; it is normally indicated as maximum depth (fsw or msw)/bottom time (min);

d. ***Decompression Stop***

Specific length of time which a diver must spend at a specified depth to allow for the elimination of sufficient inert gas from the body to allow safe ascent to the next decompression stop or the surface;

1. Produced under license by Universal Dive Techtronics, Inc., #201 - 2691 Viscount Way, Richmond, B.C., Canada V6V 1M9.

- e. ***Depth***
The maximum depth attained, measured in fsw or msw;
- f. ***Descent Rate***
The maximum rate of travel allowed in descending to the bottom. For these tables, the descent rate is 60 fsw/min (18 msw/min) maximum;
- g. ***Effective Bottom Time (EBT)***
For Repetitive Diving, the calculated Bottom Time for decompression purposes taking into consideration the residual nitrogen from the previous dive(s);
- h. ***Effective Depth (ED)***
For a dive at altitude, the depth of an equivalent dive at sea level;
- i. ***Multi-level Dive***
A dive during which the bottom time is spent at two or more depths given in the tables;
- j. ***No-Decompression Limit***
The maximum bottom time which allows a direct ascent to the surface without requiring decompression stops;
- k. ***Point of Interruption***
The time at which normal decompression was interrupted as a result of an emergency procedure, i.e., loss of breathing gas, O₂ symptom. Once the situation allows the return to normal decompression procedures, the table is to be re-entered where the interruption occurred.
- l. ***Repetitive Dive***
Any dive that has a Repetitive Factor greater than 1.0;
- m. ***Repetitive Factor (RF)***
A figure, used for Repetitive Diving, determined by the Repetitive Group and the length of the surface interval after a dive;

n. ***Repetitive Group (RG)***

A letter which relates directly to the amount of residual nitrogen in a diver's body immediately on surfacing from a dive;

o. ***Residual Nitrogen***

Nitrogen in excess of normal conditions that is still dissolved in a diver's tissues after the surface has been reached;

p. ***Stop Time***

The tabulated decompression stop time which includes the travelling time to that stop at 60 ± 10 fsw/min (18 ± 3 msw/min) *except for in-water O_2 stops where the stop time commences after the diver is confirmed on O_2 ;*

q. ***Surface Interval (SI)***

The time which a diver has spent on the surface following a dive; beginning as soon as the diver surfaces and ending as soon as the diver starts the descent for the next dive;

r. ***Surface Interval - SurD O_2***

When using Table 3, Surface Decompression with Oxygen (SurD O_2), this is the time from the diver leaving the 30 fsw (9 msw) water stop (or the bottom if no stop required) to arriving at the 40 fsw (12 msw) RCC stop. The maximum time allowed is 7 minutes.

4. DIVE RECORDING

Every dive should be recorded. A sample Dive Chart is shown in Appendix C. The Dive Chart is a convenient means of collecting the dive data which must then be entered into the official dive log.

SECTION 2

DECOMPRESSION PROCEDURES

1. STANDARD AIR DECOMPRESSION (TABLE 1)

The **Standard Air Decompression** table is contained in Table 1 (Appendix A for fsw and Appendix B for msw) in the traditional tabular format of depth, bottom time, stop times and total ascent time. Each depth segment in the table is divided into two sections by a double line corresponding to the Normal Air Diving Limit in Figure 1. Users of this Standard Air decompression table are cautioned, however, that it has been validated by manned experiments to the limit of the Normal Air Diving Range only.

Repetitive Groups are shown for dives within the Normal Air Diving Limit only and are not shown for dives beyond this line (Exceptional Exposures) since repetitive diving is not recommended in this range. *(Note that these Repetitive Groups are different from and thus incompatible with the Repetitive Groups of the US Navy Tables.)*

The procedure for Standard Air decompression is:

- a. descend at 60 fsw/min (18 msw/min) or slower; and
- b. ascend at 60 ± 10 fsw/min (18 ± 3 msw) to the indicated stops and remain at each stop for the stop time. *(The tabulated stop time for each stop includes the ascent time to that stop at 60 fsw/min).*

Example 1 (Figure 2):

Determine the decompression schedule required for a dive to 104 fsw and a bottom time of 22 minutes.

DCIEM DIVING MANUAL

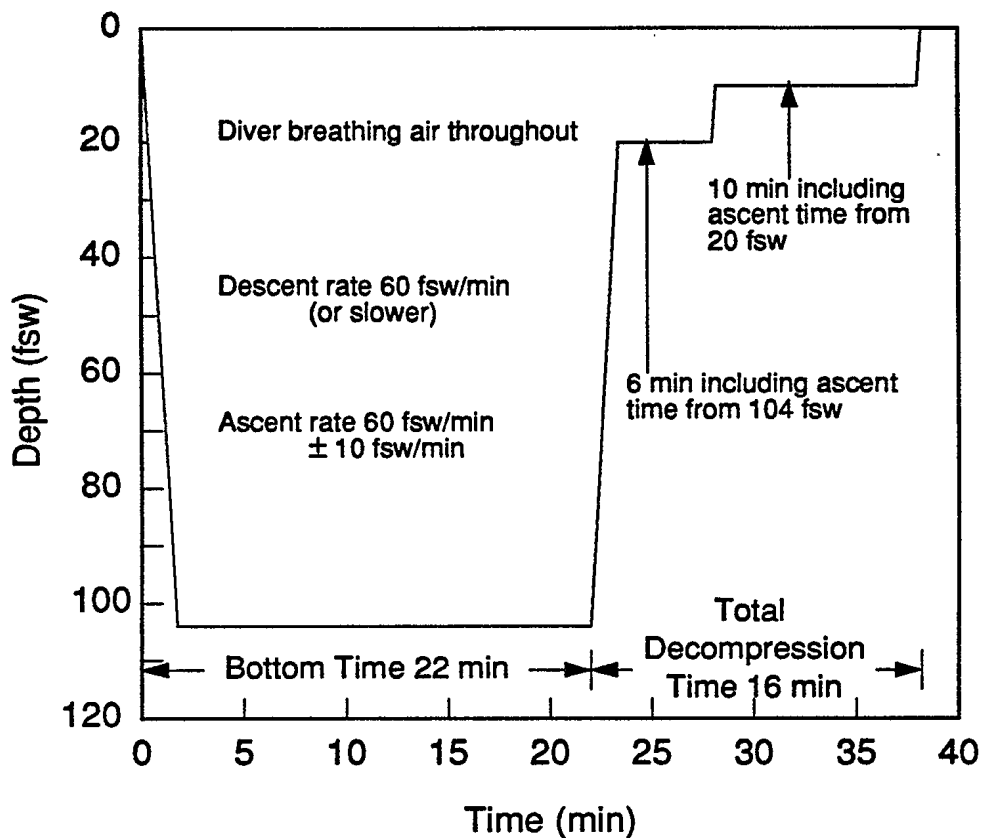


Figure 2. Standard Air Dive to 104 fsw/22 min (Example 1)

Dive	104 fsw/22 min
Decompression schedule	110 fsw/25 min from Table 1
Decompression Stops 20 fsw - 6 min 10 fsw - 10 min	Travel time to 20 fsw is 1.4 min Actual stop time is 4.6 min
Repetitive Group	G

Enter Table 1 at the depth which is exactly equal to or next greater than 104 fsw. Select 110 fsw.

Using the 110 fsw schedule, proceed to the bottom time column and find the listed time which is exactly equal to or next greater than 22 minutes. Select 25 minutes.

Proceed horizontally across the table at the 110 fsw/25 min level to find the decompression stops and the Repetitive Group (RG) designator prescribed for this dive. Decompression Stops and RG designator are as follows:

6 min stop at 20 fsw
10 min stop at 10 fsw
Repetitive Group on surfacing - "G"

2. SHORT STANDARD AIR DECOMPRESSION (TABLE 1S)

The "Short" Standard Air table presented in Table 1S is essentially a simplified one-page version of the main table limited to 150 fsw (45 msw). It is divided into two sections - a **no-decompression** section on the left of the broad vertical line and a **decompression-required** section to the right of the line. Each entry in the table gives a **Bottom Time** and, where applicable, a **Repetitive Group**. *Where bottom times appear without a Repetitive Group, repetitive diving is not recommended.*

In the no-decompression (no stop) section, bottom times are given for each Repetitive Group at each depth. These are for the purposes of calculating repetitive dives. The largest number to the left of the broad vertical line is the no-decompression limit at the given depth *for first dives only*.

For bottom times in the "decompression-required" section of Table 1S, the decompression stop times and stop depths are specified after the 60 fsw (18 msw) row and at the bottom of the table after the 150 fsw (45 msw) row. Stop times are given in increments of 5 min and include the ascent time to the stop at 60 ± 10 fsw/min (18 ± 3 msw/min). For depths to 60 fsw (18 msw), decom-

pression stops are taken at 10 fsw (3 msw) only. For deeper depths, decompression stops are at 20 and 10 fsw (6 and 3 msw).

The no-decompression limits in Tables 1 and 1S are for first dives only. For repetitive no-decompression dives, the allowed no-decompression limits are prescribed in Table 4B.

To use Table 1S, follow the previously prescribed procedures for the Standard Air Decompression table. Example 1 has been reworked for Table 1S in the example below.

Determine the decompression schedule required for a dive to 104 fsw and a bottom time of 22 minutes. Enter Table 1S at the depth which is exactly equal to or next greater to 104 fsw. Select 110 fsw.

Using the 110 fsw schedule, proceed to the bottom time column and find the listed time which is exactly equal to or next greater to 22 minutes. Select 22 minutes.

Follow the bottom time column downward to the listed decompression stops for 20 fsw and 10 fsw, respectively. Table 1S shows that the required decompression is as follows:

5 min stop at 20 fsw
10 min stop at 10 fsw
Repetitive Group on surfacing - "F"

3. IN-WATER OXYGEN DECOMPRESSION (TABLE 2)

The benefits of using oxygen for decompression are well known and applied universally with various surface decompression procedures. In diving operations, however, it is not always possible to have a chamber on-site. Yet, it is often possible to supply the diver with O₂ (closed or semi-closed apparatus with pure O₂ supply, lightweight surface supplied systems, etc.). Therefore, it was decided to apply O₂ in the water.

Although O₂ is only given to the divers at the conservative depth of 30 fsw (9 msw), the possibility of O₂ toxicity problems still

exist. Therefore, the following conditions are recommended for using the in-water O₂ procedures:

- a. a diver on O₂ must be accompanied (i.e., two divers on O₂ or one diver on O₂ plus the standby diver) for the period of O₂ breathing; and
- b. a recompression chamber (RCC) must be within 1 hour travelling time.

The **In-Water Oxygen Decompression** table is contained in Table 2. In-water decompression stops on air to and including 40 fsw (12 msw) are identical to the Standard Air table. At 30 fsw (9 msw), the diver breathes O₂ until the decompression requirements are satisfied and then ascends directly to the surface. The decompression time listed starts when the diver is confirmed on O₂ and *does not include the ascent time to 30 fsw (9 msw)*. This procedure reduces the total decompression time by 35-40% over the Standard Air method. The In-water Oxygen Decompression procedure is:

- a. ascend as for Standard Air to 30 fsw (9 msw) and stop;
- b. switch the diver's gas to O₂; the diver remains on O₂ at 30 fsw (9 msw) for the full tabulated stop time. This stop time commences when the Diver is confirmed on O₂; and
- c. ascend to the surface on O₂ (one minute is included in the Decompression Time column as a *guide only*).

Example 2 (Figure 3):

Determine the decompression schedule required for a dive to 73 fsw and a bottom time of 58 minutes.

Enter Table 2 at the depth which is exactly equal to or next greater than 73 fsw. Select 80 fsw.

Using the 80 fsw schedule, proceed to the bottom time column and find the listed time which is exactly equal to or next greater

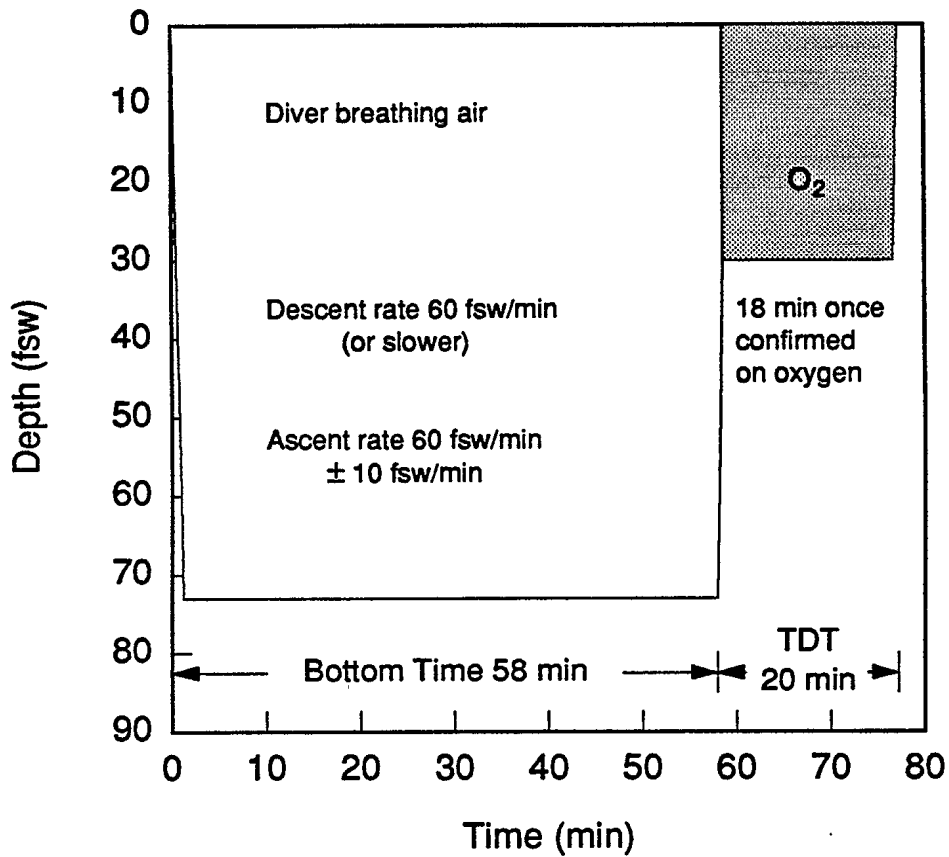


Figure 3. In-water O_2 Dive to 73 fsw/58 min (Example 2)

Dive	73 fsw/58 min
Decompression schedule	80 fsw/60 min from Table 2
Decompression Stops 30 fsw - 18 min on O_2	Does not include travel time to this stop
Repetitive Group	I

than 58 minutes. Select 60 minutes.

Proceed horizontally across the table at the 80 fsw/60 min level to find the decompression stops and the RG.

The required decompression stop is 30 fsw. The stop time, once confirmed on O₂, is 18 minutes. The Repetitive Group is "1".

During the O₂ breathing period at 30 fsw (9 msw), a 5-minute air break may be used at the end of each 30 minute O₂ period. As this is an option, 5-minute airbreaks are not included in the total decompression times in the printed tables.

The In-Water O₂ decompression table can also be applied to repetitive diving. Repetitive Groups are shown in Table 2 for dives within the normal air diving range shown in Figure 1. Note that these groups are different from those in Table 1 because of the O₂ decompression.

4. SHORT IN-WATER OXYGEN DECOMPRESSION (TABLE 2S)

The "Short" In-Water O₂ Decompression table is contained in Table 2S. This is similar to Table 1S with a no-decompression section on the left hand side and a decompression - required section on the right hand side. Each entry in the table gives a Bottom Time and, where applicable, a Repetitive Group. In the decompression-required section, the bottom times are restricted to those where the only stop is the 30 fsw (9 msw) O₂ decompression stop. The decompression times are given in increments of 5 minutes and *do not include the ascent time to the 30 fsw (9 msw) stop at 60 ± 10 fsw/min (18 ± 3 msw/min).*

Example 2 reworked for the "Short In-Water Oxygen Decompression Table is as follows:

Determine the decompression schedule required for a dive to 73 fsw and a bottom time of 58 minutes.

Enter Table 2S at the depth which is exactly equal to or next greater than 73 fsw. Select 80 fsw.

At 80 fsw, proceed to the bottom time column to the listed time which is exactly equal to or next greater than 58 minutes. Select 64 minutes.

Follow the bottom time column downward to the decompression time line. The required decompression is 20 minutes on O₂ at 30 fsw and does not include the time required to reach 30 fsw.

5. SURFACE DECOMPRESSION WITH OXYGEN (TABLE 3)

Surface decompression procedures reduce the in-water exposure time substantially with most of the decompression being carried out in a dry recompression chamber (RCC) on the surface. Decompression is carried out normally as for Standard Air until the end of the 30 fsw (9 msw) stop. Thus the decompression stops on air to and including 30 fsw (9 msw) are identical to the Standard Air Table. At the end of the 30 fsw (9 msw) stop, the diver then goes directly to the surface and then returns to 40 fsw (12 msw) in an RCC to complete the decompression requirements on O₂. After each 30 minute period on O₂, 5-minute air breaks are taken.

The **Surface Decompression with Oxygen (SurD O₂)** table is contained in Table 3. The SurD O₂ table has been validated by manned experiments to the limits of the exceptional exposure range shown in Figure 1. SurD O₂ is the preferred method for all compressed air diving requiring significant amounts of decompression, and it is the only method recommended for exceptional exposure diving.

The procedure for its use is:

- a. ascend and decompress as for Standard Air to the completion of the 30 fsw (9 msw) or the surface if no in-water stop is shown. (*Stop time includes ascent to 30 fsw (9 msw) stop at 60 ± 10 fsw/min (18 ± 3 msw/min)*)

AIR DIVING TABLES

- b. ascend to the surface at 60 ± 10 fsw/min (18 ± 3 msw/min) and recompress on O_2 to 40 fsw (12 msw) in the RCC. The Surface Interval - SurD O_2 is the time from leaving the 30 fsw (9 msw) water stop (or the bottom, if no in-water stop is required) to reaching the 40 fsw (12 msw) RCC stop. This time must not exceed 7 minutes;¹
- c. remain on O_2 at 40 fsw (12 msw) for the tabulated stop time with 5 minute air breaks² after every 30 minutes on O_2 (the asterisk "*" following the O_2 stop times in the tables represent the number of air breaks); and
- d. ascend to the surface on the breathing medium used (one min is included in the Decompression Time column as a *guide only*).

Example 3 (Figure 4):

Determine the decompression schedule required for a dive to 120 fsw/75 min.

Enter Table 3 at the depth which is exactly equal to or next greater than 120 fsw. Select 120 fsw.

Using the 120 fsw schedule, proceed to the bottom time column and find the listed time which is exactly equal to or next greater than 75 minutes. Select 75 minutes.

1. The maximum Surface Interval (SI) - SurD O_2 of 7 minutes was chosen to enhance the operability of the procedure and to reduce the chances of "omitted decompression" during operations. Extensive experimentation using the full 7 minute SI has proven this procedure safe. In operational use, the SI should be kept to a minimum.

2. When the O_2 stop time is a multiple of 30 minute, a 5-minute air break may or may not be required before ascent to the surface. The 5 minute air breaks after 30 minutes on O_2 were included in calculating the 40 fsw (12 msw) O_2 stop times. The tabulated 40 fsw (12 msw) stop times are " O_2 Times" only, while the Total Decompression Time column includes the air breaks.

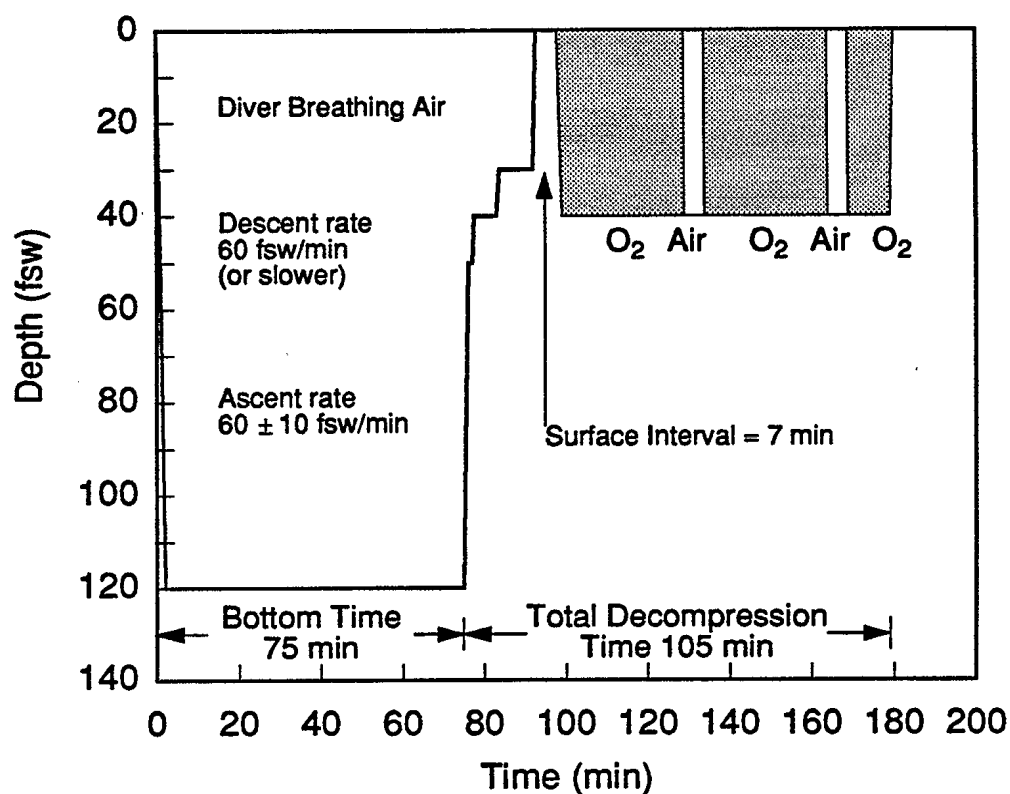


Figure 4. Surface Decompression Dive (Example 3)

Dive	120 fsw/75 min
Decompression schedule	120 fsw/75 min from Table 3
Decompression Stops	
50 fsw - 2 min	On air (includes travel time to stop)
40 fsw - 6 min	On air
30 fsw - 9 min	On air.
Surface	Time from leaving 30 fsw in-water to reaching 40 fsw in RCC is 7 min
40 fsw - 80 min	70 min O ₂ + two 5-min air breaks
Repetitive Group	None - Exceptional exposure dive

AIR DIVING TABLES

Proceed horizontally across the table at the 120 fsw/75 min level to find the decompression stops and stop times. These are as follows:

- 2 min stop at 50 fsw
- 6 min stop at 40 fsw
- 9 min stop at 30 fsw
- 80 min stop at 40 fsw (70 min on O₂ + 2 air breaks in RCC).

Repetitive diving can also be conducted using SurD O₂. Repetitive Groups are shown in Table 3 for dives within the Normal Air Diving Range. Note that these groups may be different from those of Tables 1 and 2.

6. REPETITIVE DIVING PROCEDURES (TABLES 4A AND 4B)

There is a quantity of residual nitrogen that remains in a diver's body after every air dive. This residual nitrogen will gradually reduce to a normal level over a period of approximately 18 hours. A diver planning to make a second dive within this period must consider this residual nitrogen level when planning for the second dive.

A **Repetitive Group (RG)** has been assigned to each dive in the Normal Air Diving Range in Tables 1, 1S, 2, 2S, and 3. The **Repetitive Air Diving Tables** have been developed to protect the diver from the effects of residual nitrogen. Table 4 consists of two parts, 4A and 4B, and permit repetitive diving only within the range of the Normal Air Diving Limit outlined in Figure 1. Repetitive diving has been validated using the Standard Air, In-Water O₂ and SurD O₂ decompression methods.

In Table 4A, **Repetitive Factors (RF)** are given for each RG letter from A to O at selected **Surface intervals (SI)** from 15 minutes to 18 hours. As the SI increases, the RF decreases until it becomes 1.0. A dive is considered a repetitive dive if it is conducted while the RF from the previous dive is greater than 1.0. For example, any dive within 18 hours after surfacing from a Group H or higher dive would be considered a repetitive dive.

The RF is used to calculate the **Effective Bottom Time (EBT)** for the repetitive dive. This EBT, determined by multiplying the actual bottom time of the repetitive dive by the RF, is the total of the actual bottom time and the time that must be considered to have been already spent at that depth because of the residual nitrogen remaining in the body from the previous dive. The EBT is then used to determine the decompression requirements for the repetitive dive.

In Table 4B, the **Allowable No-Decompression (No-D) Limits** for repetitive dives are shown for different depths as a function of the RF. These No-D limits are actual bottom times and not EBT's. *(Note that the EBT's of these repetitive No-D limits are less than the No-D limits given in Tables 1, 1S, 2, 2S and 3, which are for first dives only.)* With Table 4B, calculations are unnecessary if only no-decompression repetitive dives are planned. For any repetitive dive, this table should be consulted to determine whether the planned dive can be done as a no-decompression dive or whether decompression will be required.

Multiple dives can be performed using the RG of the EBT and the depth of the repetitive dive; however, it may be necessary to adjust this RG under certain conditions (see **ADJUSTMENTS FOR MULTIPLE REPETITIVE DIVES**).

The procedure for using the repetitive dive tables is as follows. (A worksheet for calculating the decompression requirements for repetitive dives is in Appendix C and a flow chart to aid in using this procedure is given in Figure 5.)

- a. Find the RG of the first dive (from Table 1, 1S, 2, 2S, or 3). Enter Table 4A.
- b. Proceed down the RG column to locate the matching RG letter from the first dive and then proceed horizontally along the same line to the appropriate Surface Interval (SI) column. Where the RG and SI intersect, note the Repetitive Factor (RF).

REPETITIVE DIVING FLOWCHART

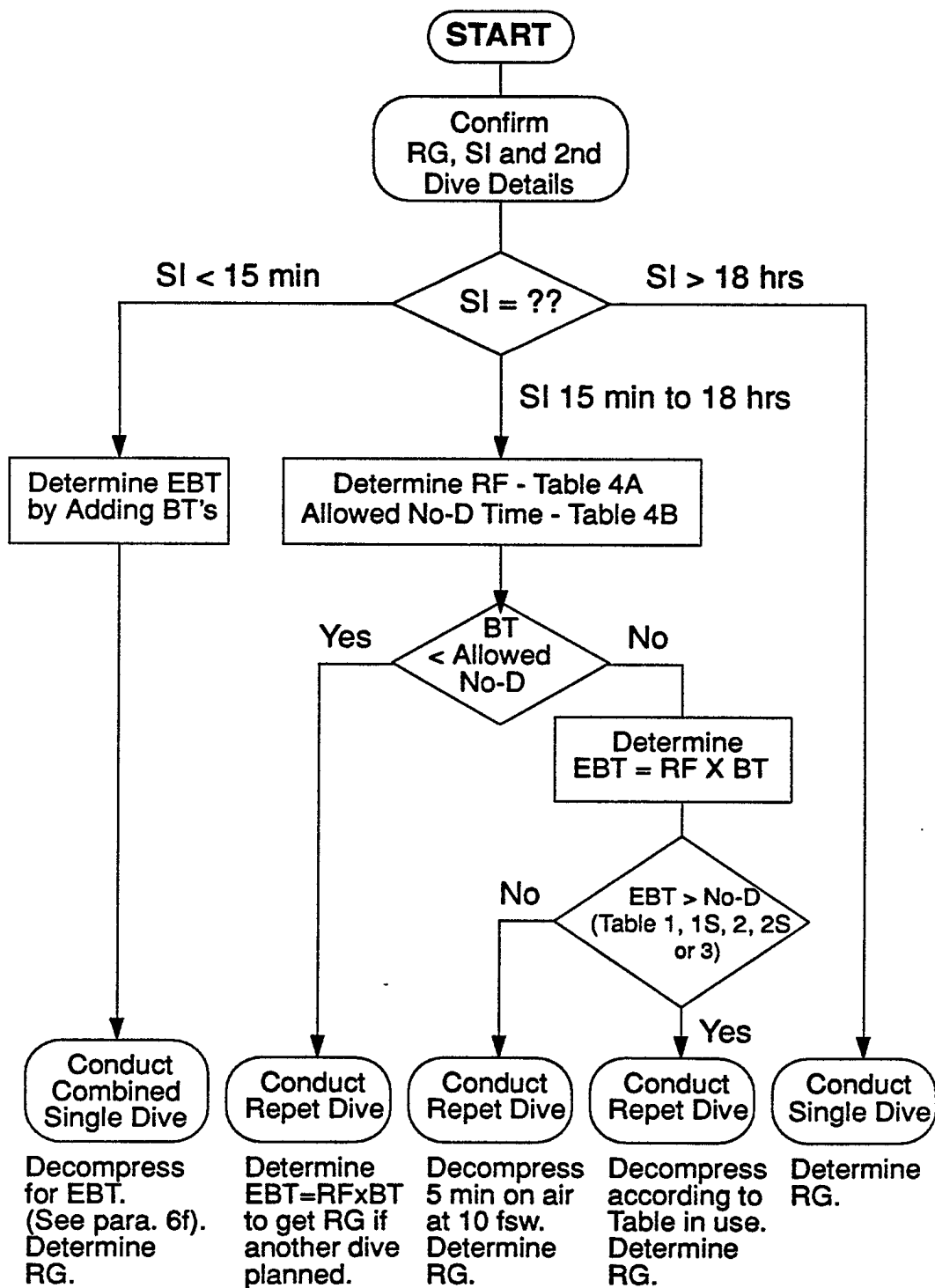


Figure 5. Repetitive Diving Flowchart

- c. Enter Table 4B at the RF column and proceed downward in the column to the applicable depth of the planned repetitive dive. Where the RF and the depth intersect, note the Allowable No-D Limit for this repetitive dive. (Note that this is the actual bottom time and not the EBT.)
- d. **FOR NO-DECOMPRESSION REPETITIVE DIVES.**
- (1) If the actual bottom time of the second dive is less than or equal to the allowable No-D limit in Table 4B, the second dive is a No-D dive. (See Example 4 and sample Repetitive Diving Work Sheet, Figure 6.) *(If a third dive is not intended within the next 18 hours, no further calculations are necessary.)*
- (2) If another dive is planned - if the actual bottom time of the second dive is less than the allowable No-D limit, multiply the actual bottom time by the RF to obtain the EBT for the second dive. Find the new RG from the EBT and depth of the second dive from the appropriate decompression table. This RG may need to be adjusted before a third dive can be conducted. Refer to the instructions **ADJUSTMENTS FOR MULTIPLE REPETITIVE DIVES.**

Example 4:

First Dive = 60 fsw/30 min	RG = D (Table 1S)
Surface Interval = 1 hr	RF = 1.4 (Table 4A)
Second Dive Depth = 50 fsw	Repet. No-D limit is 45 min (Table 4B)
Actual bottom time = 30 min	EBT = $30 \times 1.4 = 42$ min RG = E (Table 1S)
A third dive is intended. Surface Interval = 1 hr 15 min	RF = 1.5 (Table 4A)
Third Dive Depth = 40 fsw	Repet. No-D limit is 115 min (Table 4B)

REPETITIVE DIVING WORKSHEET (FEET)

FIRST DIVE:

60 fsw/ 30 min

Table Used 1S

1st Dive Repetitive Group D

SECOND DIVE:

SI 1 hr 00 min

RF 1.4 (Table 4A)

Depth 50 fsw

Table Used 1S

Allowable No-D Limit (Table 4B) 45 min

Planned Bottom Time (BT) 30 min

EBT = (RF) 1.4 x (BT) 30 = 42

Decompression required:

Yes

☐

No

☒

DECOMPRESSION SCHEDULE: 50 fsw/(EBT) 50 min

 fsw min

 fsw min

 fsw min

O₂ Stop (if required)

 fsw min

 fsw min

2nd Dive Repetitive Group E (from Table Used)

2nd Dive Adjusted Repetitive Group

NOTE: If the BT exceeds the allowable No-D Limit in Table 4B, but the EBT is less than the No-D Limit in Table 1S, a 5 - minute decompression stop at 10 fsw is required.

Figure 6. Repetitive Dive Worksheet for Example 4.

(3) FINDING THE MINIMUM SI FOR A NO-D DIVE.

Enter Table 4B at the depth of the repetitive dive and proceed horizontally to the intended bottom time of the repetitive dive. Proceed upward in the column to find the RF. Enter Table 4A at the RG of the first dive and proceed horizontally to the appropriate RF. Proceed upward in the column to determine the minimum SI. (See Example 5.)

Example 5:

First Dive = 80 fsw/25 min	RG = E (Table 1S)
Second Dive = 50 fsw/50 min	From Table 4B, 50 min bottom time at 50 fsw has RF = 1.3
Surface Interval	From Table 4A, for a first dive of RG = E, a SI of 2 hr is required.
If another dive is planned	EBT for the second dive is $50 \times 1.3 = 65$ min and the RG is G (Table 1S)

e. FOR REPETITIVE DIVES REQUIRING DECOMPRESSION.

- (1) If the actual bottom time of the repetitive dive is greater than the allowable No-D limit in Table 4B, the repetitive dive requires decompression. Multiply the actual bottom time of the repetitive dive by the RF to obtain the EBT. Use Table 1, 1S, 2, 2S, or 3 to determine the decompression schedule for the depth and EBT of the repetitive dive. (See Example 6.)

Example 6:

First Dive = 110 fsw/15 min	RG = D
Surface Interval = 40 min	RF = 1.5 (Table 4A)
Second Dive = 110 fsw/10 min	Repet. No-D limit is 7 min (Table 4B), decompression is required EBT = $10 \times 1.5 = 15$ min
Decompression Schedule	110 fsw/15 min

AIR DIVING TABLES

- (2) For repetitive bottom times *exceeding* the allowable No-D limits in Table 4B, but with EBT's *less* than the no-decompression limit in Table 1, 1S, 2, 2S, or 3, a 5-minute decompression stop at 10 fsw is mandatory. (The No-D limits in Tables 1, 1S, 2, 2S, or 3 are for first dives only. (See Example 7)).

Example 7:

First Dive = 60 fsw/50 min	RG = F (Table 1S)
Surface Interval = 1 hr 45 min	RF = 1.5 (Table 4A)
Second Dive = 60 fsw/30 min	Repet. No-D limit is 27 min (Table 4B) Therefore, decompression is required
	EBT = $1.5 \times 30 = 45$ min which is in the No-D range of Table 1S.
Decompression required	5 min at 10 fsw (Table 1S)

f. FOR SURFACE INTERVALS LESS THAN 15 MINUTES.

- (1) If the first and second dives are at the same depth, add the bottom times of the first and second dives together to obtain the EBT for the second dive. (See Example 8.) If a third dive is planned, use this total time to determine the RG from Table 1 or 1S.

Example 8:

First Dive = 60 fsw/30 min	RG = D, SI = 10 min
Second Dive = 60 fsw/25 min	EBT = $30 + 25 = 55$ min
Decompression schedule	60 fsw/55 min, 5 min at 10 fsw
Repetitive Group	G

- (2) If the first and second dives are to different depths, it is first necessary to determine the bottom time at the second dive depth that would be equivalent to the first dive. Find the RG from the first dive. Proceed to the

second dive depth and find the bottom time with the same RG. Add this bottom time to the intended bottom time of the second dive to obtain the EBT for the second dive (as in Example 8). (See Example 9.)

Example 9:

First Dive = 120 fsw/10 min	RG = C (Table 1S)
Surface Interval	12 min
Second Dive Depth = 70 fsw	Group C dive at 70 fsw has a bottom time of 20 min
2nd Dive Bott. Time = 20 min	EBT = 20 + 20 = 40 min
Decompression required	70 fsw/40 min, 5 min at 10 fsw

- g. The RF in Table 4A have been cut off - arbitrarily - at 2.0. It is felt that after a strenuous first dive, the SI should be sufficient in length to reduce the "residual" nitrogen level of the diver to that degree. *If it is necessary to perform a repetitive dive before the RF reduces to 2.0, the same procedure described in "f" for surface intervals less than 15 min can be used.*

h. ADJUSTMENTS FOR MULTIPLE REPETITIVE DIVES

Repetitive dive tables, by their nature of having fixed limits, cannot take into account every possible diving situation. Repetitive Group adjustments may be required in some cases if more than one repetitive dive is planned. These adjustments are necessary to avoid problems on repetitive dives after the first repetitive dive.

For example, if a series of similar no-decompression repetitive dives are conducted (i.e., similar depth/bottom time/surface interval), it is possible to get locked into a loop resulting in the same RG and RF after each dive. Because decompression will eventually be required, it is necessary to adjust the RG to break out of this loop. Similarly, if a short duration dive follows a longer bottom time dive, the RG

AIR DIVING TABLES

calculated for the second dive will be too small and will not take into account the influence of the longer first dive. Thus the second dive RG must be adjusted upward.

The procedure is as follows:

If another dive is planned after a repetitive dive, calculate the RG that corresponds to the Depth and EBT of the just completed repetitive dive from the appropriate decompression table (Tables 1, 1S, 2, 2S, or 3).

- (1) If the Surface Interval before the next repetitive dive is **less than 6 hours**, and the RG of the just completed repetitive dive is **greater than** the RG from the previous dive, **NO adjustment** is necessary.

However, if the RG is **lower than or equal to** the RG of the previous dive, **ADJUST** the RG of the just completed dive **upward** to equal the RG of the previous dive + one letter. (See Example 10).

Example 10:

Previous dive (1st dive)	70 fsw/25 min, RG = D
Surface Interval = 15 min	RF = 1.8
Just completed dive (2nd dive)	70 fsw/8 min EBT = $8 \times 1.8 = 14.4$ min \Rightarrow RG = B
RG (just completed dive) less than RG (previous dive)	Adjust RG (just completed dive) from B to E (RG = D + 1 Letter)
SI to next dive = 1.5 hours	RF = 1.4 (from RG = E)
Note (for comparison): If the first SI is less than 15 min in this example, application of para. 6f gives EBT for the second dive as $25 + 8 = 33$ min. Thus, RG = E for the second dive.	

- (2) If the Surface Interval to the next Repetitive Dive is **more than 6 hours**, **NO adjustment** is necessary.

7. MULTI-LEVEL DIVING

A multi-level dive is a dive during which the bottom time is spent at two or more depths given in the tables. These dives should be done with great care as the risk of decompression sickness may be higher in some cases than for dives to a fixed depth. *The following rules are based solely on Table 1S (Short Standard Air Decompression) and should not be extended outside the limits of this table.* They are based on the repetitive diving procedures for surface intervals less than 15 min. Limit the dive to 4 steps or less and **plan to conduct the deepest part of the dive first** and ascend to progressively shallower depths. In the rules, each successive stop depth is designated as Step 1, Step 2, Step 3,....

- a. From Table 1S, find the RG for the depth and bottom time of Step 1. Proceed to the depth of Step 2 and find the bottom time for that RG. Add this bottom time to the planned time at Step 2. The RG for this total time is the RG at the end of Step 2.
- b. Proceed to the depth of Step 3 and find the bottom time for the RG at the end of Step 2. Add this bottom time to the planned time at Step 3 to determine the RG at the end of Step 3. If another step is planned, repeat the procedure.
- c. For each successive step shallower than the one before, ascend at least 20 fsw (6 msw) to and between stops in the dive (for depths greater than 100 fsw (30 msw), ascend at least 30 fsw (9 msw)).
 - (1) for dives not requiring decompression after any level, **finish the dive in SHALLOW water in a depth range between 10 and 20 fsw (3 and 6 msw) for at least 5 minutes.** (See Example 11 and Figure 7.)
 - (2) if it is necessary to conduct a dive requiring decompression after any level, decompress for the maximum decompression attained (furthest right column attained in Table 1S). (See Example 12).

AIR DIVING TABLES

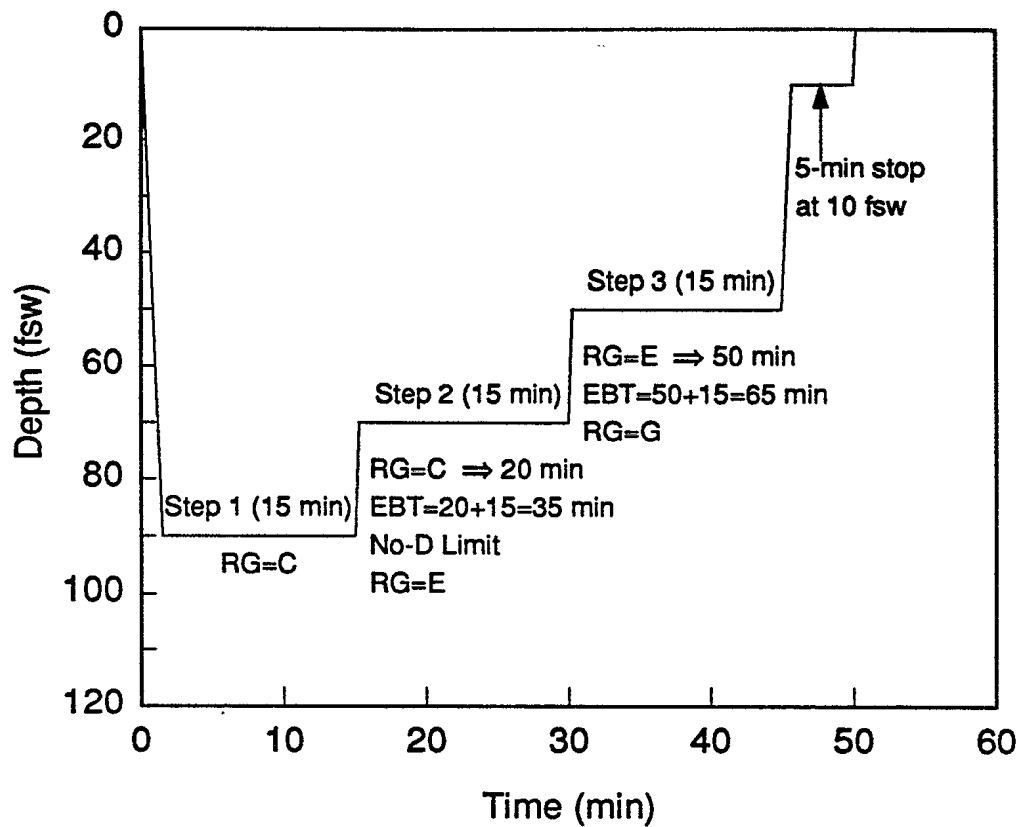


Figure 7. Multi-level Dive (Example 11)

:

Step 1	90 fsw/15 min	RG = C
Step 2	Depth at 70 fsw	RG = C \Rightarrow 20 min already spent at 70 fsw.
	Time at Step 2 = 15 min	EBT = 20 min + 15 min = 35 min \Rightarrow RG = E (No-D limit).
Step 3	Depth at 50 fsw	RG = E \Rightarrow 50 min already spent at 50 fsw
	Time at Step 3 = 15 min	EBT = 50 min + 15 min = 65 min \Rightarrow RG = G.
Finish dive with 5-min stop at 10 fsw.		

Example 12:

Step 1	120 fsw/15 min	RG = E (Decompression required)
Step 2	Depth at 50 fsw	RG = E \Rightarrow 50 min already spent at 50 fsw.
	Time at Step 2 = 15 min	EBT = 50 min + 15 min = 65 min \Rightarrow RG = G.
Decompression		10 min at 10 fsw (for Step 1)

- d. If it is absolutely necessary to go deeper at any step than the one before, **always finish the dive in shallow water in a depth range between 10 and 20 fsw (3 and 6 msw) for at least 5 minutes or for the maximum decompression attained as in c(2) above.** (See Example 12A.)

Example 12A:

Step 1	70 fsw/15 min	RG = B
Step 2	120 fsw/6 min	EBT = 8 + 6 \Rightarrow 120 fsw/15 min RG = E (Decompression required)
Step 3	50 fsw/15 min	As in Example 12, same decompression.

- e. Allow for a minimum surface interval of 1 hour after a multi-level dive before diving again. For a repetitive multi-level dive, multiply the actual bottom time of Step 1 by the RF to determine the effective bottom time and RG of the first step and use the procedure given above. **The RG for Step 1 must be greater than or equal to the RG from the preceding dive.** Before surfacing, spend at least 5 minutes at a depth between 10 and 20 fsw (3 and 6 msw) either as a final step in the dive or as a safety stop. ***These instructions apply only for each successive step shallower than the one before with the EBT at each step within the no-decompression limit.*** (See Example 13).

(Note: although the above multi-level procedure has not been extensively tested, it is considered safer than many other methods commonly practised.)

Example 13

1st Dive		RG = F, SI = 3:00, RF = 1.3
<u>2nd Dive</u>		EBT = 26 min, RG = E
Step 1	70 fsw/20 min	Raise RG = E to RG = F
Step 2	Depth at 50 fsw	RG = F \Rightarrow 60 min at 50 fsw
	for 10 min	EBT = 10 min + 60 min = 70 min RG = G
Step 3	Depth at 20 fsw	RG = G \Rightarrow 240 min at 20 fsw
	for 10 min	EBT = 10 min + 240 min = 250 min RG = H.

8. DEPTH CORRECTIONS FOR DIVING AT ALTITUDE (TABLE 5)

Table 5 provides tabulated depth corrections for determining decompression profiles and decompression stop depths when diving in elevated areas above sea level. These corrections are necessary because the surface pressure and the underwater absolute pressure are less at altitude. Of particular significance is that diving tables and decompression techniques are designed to return a diver safely to a sea level pressure and not to a lesser pressure as found at altitude. This reduced atmospheric pressure at the surface makes the dive at altitude equivalent to a deeper dive at sea level.

Table 5 has been developed to resolve these differences by providing depth corrections for selected altitudes from 300 feet (100 metres) to 10,000 feet (3000 metres). These depth corrections are added to the actual depth to determine the dive profile to be used for decompression purposes. In addition, Table 5 gives the actual stop depths to be used in place of the standard decompression stops. (Divers are cautioned that most commonly used depth gauges will not read "actual" water depth at altitudes. Shot lines are recommended.)

The procedure for using the Depth Corrections table is:

- a. establish the altitude of the dive site and determine the actual maximum water depth of the dive;
- b. find the correction for the actual depth according to the altitude from Table 5 and **add** this correction to the actual depth to obtain the **Effective Depth (ED)**;
- c. determine the decompression schedule from the appropriate decompression table by applying the Effective Depth and the actual planned bottom time;
- d. replace the stop depths from the normal decompression table with the actual stop depths shown at the bottom of Table 5 (the stop times are not changed); and
- e. decompress on this altitude schedule in accordance with normal procedures using the regular travel rates. (Above 5000 feet (1500 metres), reduce the ascent rate to 50 ft/min (15 m/min).)

A worksheet to assist in the calculation of the decompression requirements for diving at altitude is given in Appendix C. (See Example 14 and sample worksheet, Figure 7)

Example 14

Altitude of dive site	7200 ft
Dive = 100 ft/23 min Decompression by Standard Air.	Depth by shot line.
Depth Correction for 7200 ft	+30 fsw (from Table 5)
Effective Depth	100 + 30 = 130 fsw.
Decompression schedule from Table 1 for 130 fsw/25 min 30 fsw - 5 min stop 20 fsw - 7 min stop 10 fsw - 12 min stop	Actual decompression schedule, corrected for stop depths 24 fsw - 5 min stop 16 fsw - 7 min stop 8 fsw - 12 min stop
Repetitive Group	H

AIR DIVING TABLES

The corrections for altitude shown in Table 5 only apply for divers who have been acclimatized at that altitude, i.e., for those who have spent at least 12 to 24 hr at the altitude of the dive site. Corrections to the depth would be greater for those who have not been acclimatized.

If diving at altitude is conducted within 24 hours of arriving at the altitude of the dive site, apply an additional 10 feet (3 metres) to the actual maximum depth of the dive used in Table 5. After 24 hours, this additional correction is not required. (See Example 15.)

Example 15

Altitude of dive site	7200 ft (Same as Example 14 for unacclimatized diver)
Dive = 100 ft/23 min Decompression by Standard Air.	Depth by shot line. Apply correction $100 + 10 = 110$ fsw
Depth Correction for 7200 ft	+ 40 fsw (from Table 5)
Effective Depth	$100 + 10 + 30 = 150$ fsw.
Decompression schedule from Table 1 for 130 fsw/25 min 40 fsw - 4 min stop 30 fsw - 6 min stop 20 fsw - 8 min stop 10 fsw - 25 min stop	Actual decompression schedule, corrected for stop depths 31 fsw - 4 min stop 24 fsw - 6 min stop 16 fsw - 8 min stop 8 fsw - 25 min stop
Repetitive Group	J

(Note: the depth corrections presented here have not been experimentally validated by DCIEM. Unlike other similar corrections which have been published [9] for recreational diving, these depth corrections have been derived by recalculating the decompression tables at the different altitudes. They should not be used with any other published tables.)

ALTITUDE DIVING WORKSHEET (FEET)

ALTITUDE OF DIVE SITE 7200 ft
 ACTUAL DEPTH OF DIVE (a) 100 fsw
 DIVE DEPTH CORRECTION (b) + 30 fsw
 EFFECTIVE DEPTH (ED) (a+b) 130 fsw
 BOTTOM TIME (BT) 23 min
 Schedule Required (ED/BT) 130 fsw/ 25 min

Table Used 1

ALTITUDE DECOMPRESSION SCHEDULE

Sea Level Stop Depth	Actual Stop Depth	Stop Time
50 fsw	<u> </u> fsw	<u> </u> min
40 fsw	<u> </u> fsw	<u> </u> min
30 fsw	<u>24</u> fsw	<u>5</u> min
20 fsw	<u>16</u> fsw	<u>7</u> min
10 fsw	<u>8</u> fsw	<u>12</u> min
O ₂ Stop	<u> </u> fsw	<u> </u> min

Repetitive Group H

Figure 8. Altitude Diving Worksheet for Example 13.

SECTION 3

GENERAL PROCEDURES

1. DESCENT/ASCENT RATES

- a. **DESCENT RATE** is 60 fsw/min (18 msw/min) or slower.
- b. **ASCENT RATE** and **TRAVEL** between stops is 60 ± 10 fsw/min (18 ± 3 msw/min).
- c. **ASCENT TIME** to a stop is included in that stop time except for O₂ stops. O₂ stop time starts when the diver is confirmed on O₂; otherwise, the actual time spent at a stop equals "tabulated" stop time minus travel time to that stop at 60 fsw/min (18 msw/min). (See Example 16.)

Example 16:

Dive = 140 fsw/15 min	Standard Air Decompression
First stop from Table 1	6 min at 20 fsw.
Travel time to first stop	2 min at 60 fsw/min
Actual time at 20 fsw stop	4 min

2. VARIATIONS IN RATE OF ASCENT

- a. **ASCENT RATE TOO SLOW:**
(Less than 50 fsw/min (15 msw/min))
 - (1) Delay starts *deeper than* half maximum depth of dive - **DELAY ADDED to BOTTOM TIME** and decompress in accordance with new bottom time;
 - (2) Delay starts *shallower than* half maximum depth of dive - **DELAY ADDED to STOP TIME** of next stop. If

no stop is scheduled, then stop at 10 fsw (3 msw) for the time of the delay.

(Note: When a delay has occurred, apply the appropriate correction in accordance with para. (1) or (2). The revised stop time includes the ascent time to the next stop from the depth where the delay occurred; therefore no additional calculation is required for ascent time.)

b. ASCENT RATE TO FIRST STOP TOO FAST:

No correction required (time at stop includes travel time to the stop).

c. ASCENT RATE TOO FAST (no stops required):

Observe diver for at least one hour.

3. OXYGEN RELATED PROBLEMS

a. OXYGEN PROBLEMS IN WATER

at 30 fsw (9 msw) O₂ stop:

(1) MINOR SYMPTOMS of O₂ toxicity

(a) switch diver to air and ventilate, wait for symptoms to subside, then wait 15 minutes, and recommence O₂ at point of interruption or if symptoms recur, switch to Standard Air Decompression Table; OR

(b) switch diver to air and ventilate, continue decompression in accordance with Standard Air Decompression Table. The O₂ time is "good" time for decompression purposes and is subtracted from the 30 fsw and/or 20 fsw and/or 10 fsw (9 msw and/or 6 msw and/or 3 msw) air stop times (see Example 17); OR

AIR DIVING TABLES

- (c) if RCC immediately available, then on completion of the 30 fsw (9 msw) air stop, SurD O₂ may be performed.

Example 17:

Dive = 112 fsw/42 min	In-Water O ₂ . Table 2
120 fsw/45 min calls for	40 fsw - 3 min stop 30 fsw - 34 min stop on O ₂
<u>Situation</u> After 9 min on O ₂ , diver reports possible O ₂ toxicity symptoms.	
<u>Reaction</u> The Standard Air table for 120 fsw/45 min is 40 fsw - 3 min 30 fsw - 7 min 20 fsw - 9 min 10 fsw - 41 min	The diver is switched to air immediately and ventilated. The 9 min spent on O ₂ is "good" time. The 40 fsw stop, 30 fsw stop, and 2 min of the 20 fsw stop have been satisfied.
	Pull diver to 20 fsw. Complete decompression on air at 20 fsw for 7 min 10 fsw for 41 min.

(2) SERIOUS, INCAPACITATING SYMPTOMS of CNS OXYGEN TOXICITY:

- (a) take diver off O₂, ventilate, **STABILIZE**;³and
- (b) surface diver carefully to reduce risk of embolism. Treat for possible embolism if any uncertainty exists. Otherwise, treat for omitted decompression and observe carefully.

(3) LOSS OF OXYGEN

- (a) switch to air,
- (b) re-establish O₂ and resume O₂ at the point of interruption; OR, if not successful,

3. Diver is not be brought to surface while convulsing.

- (c) decompress in accordance with Standard Air Decompression Table as per para. 3a(1)(b), or if O₂ available to RCC, SurD O₂ as per para. 3a(1)(c).

b. OXYGEN PROBLEMS IN RCC (SurD O₂):

(1) LOSS of O₂:

- (a) no success in re-establishing O₂, decompress in accordance with Standard Air Decompression Table commencing at the 40 fsw (12 msw) stop. Previous O₂ time is "good" time and is subtracted from 40 fsw (12 msw) and/or 30 fsw (9 msw) and/or 20 fsw (6 msw) and/or 10 fsw (3 msw) stop. (See Example 18.)

Example 18:

Dive = 140 fsw/30 min, SurD O ₂	Table 3 calls for 30 min O ₂ in RCC
<u>Situation</u>	
After 24 min on O ₂ in RCC at 40 fsw, O ₂ is lost.	
<u>Reaction</u>	The 24 min spent on O ₂ satisfies the 40, 30 and 20 fsw stops and 5 min of the 10 fsw stop. Therefore, ascend to 10 fsw. Complete decompression by remaining at 10 fsw for 24 min on air.
The Standard Air table for 140 fsw/30 min is 40 fsw - 4 min stop 30 fsw - 6 min stop 20 fsw - 9 min stop 10 fsw - 29 min stop	

(2) MINOR SYMPTOMS of Oxygen toxicity:

- (a) take diver off O₂;
- (b) after symptoms are gone, either:
- (1) leave diver on air for additional 15 minutes and then resume O₂ from time of interruption; or,

AIR DIVING TABLES

(2) switch diver to Standard Air table as in b(1)(a) above, and complete decompression on air.

(c) if O₂ breathing is resumed and O₂ symptoms recur, switch diver to Standard Air table as in b(1)(a) above, and complete decompression on air. (See Example 19.)

Example 19:

Dive = 120 fsw/75 min SurD O ₂	Table 3 calls for 70 min on O ₂ in the RCC plus two 5-min air breaks.
<u>Situation</u> After 11 min on O ₂ in the RCC, the diver develops an O ₂ symptom.	
<u>Reaction</u> Take the diver off O ₂ . Wait until the diver has stabilized plus 15 min, then resume O ₂ breathing. For example, if the diver took 4 min to stabilize, then the 40 fsw RCC stop would be 99 min, i.e., 11 + 4(stabilize) + 15(wait) + 19 + 5(air break) + 30 + 5 (air break) + 10 (remainder). Therefore, complete the decompression in accordance with this schedule and then bring the diver to the surface on the breathing medium in use.	

(3) SERIOUS, INCAPACITATING SYMPTOMS of CNS OXYGEN TOXICITY:

(a) take diver off O₂, **STABILIZE**⁴; and

(b) switch to Standard Air table as in b(1)(a) above, and complete decompression on air.

4. OMITTED DECOMPRESSION (Diver shows no symptoms),

a. RCC immediately available (less than 7 minutes):

(1) if the 30 fsw (9 msw) or deeper stops were not completed - **TREAT**

4. RCC depth is not to be altered while diver is convulsing.

- (a) using Treatment Table 5 (Canadian Forces Diving Manual [10]/US Navy Diving Manual [6]) if less than 30 minutes omitted decompression, or,
 - (b) using Treatment Table 6 if greater than or equal to 30 minutes omitted decompression;
- (2) if the 30 fsw (9 msw) Standard Air stop⁵ was completed with no previous decompression omitted, recompress the diver in the chamber on O₂ to 40 fsw (12 msw) and decompress according to Table 3 (SurD O₂) (see Example 20).

Example 20:

Dive = 130 fsw/40 min	Standard Air Table 1 calls for
	40 fsw - 5 min stop, 30 fsw - 6 min stop, 20 fsw - 10 min stop, and 10 fsw - 40 min stop.
<u>Situation</u>	
Diver surfaces after completing the 40 fsw stop, the 30 fsw stop and 3 min of the 20 fsw stop. Diver is asymptomatic and RCC is available.	
<u>Reaction</u>	
Since the diver has completed the 30 fsw stop, dive on O ₂ in RCC to 40 fsw. Keep diver on O ₂ for 36 min (Table 3). Add a 5-min air break after 30 min on O ₂ for a total decompression time of 41 min in the RCC.	

b. RCC not immediately available:

The preferred action is to get the diver to a RCC for treatment. The diver should receive 100% O₂ by double-seal

5. For Table 3 (SurD O₂): on any profile in which there is no 30 fsw (9 msw) in-water stop, the diver cannot incur omitted decompression provided that the Surface Interval - SurD O₂ is completed within the 7 minutes allowed. If 7 minutes are exceeded, then handle as per subpara. 4a(1).

AIR DIVING TABLES

oronasal mask enroute to the RCC. However, the supervisor has the following option if the situation warrants it:

- (1) return the diver to the next deeper stop where the omission occurred and repeat this stop. Continue decompression in accordance with the original schedule (Example 21); or

Example 21:

Dive = 130 fsw/40 min	Standard Air Table 1 calls for
	40 fsw - 5 min stop, 30 fsw - 6 min stop, 20 fsw - 10 min stop, and 10 fsw - 40 min stop.
<u>Situation</u> Diver surfaces after completing the 40 fsw stop, the 30 fsw stop and 3 min of the 20 fsw stop. Diver is asymptomatic and RCC is not available.	
<u>Reaction</u> Recompress immediately to 30 fsw for 6 min and resume schedule beginning with the 20 fsw stop.	

- (2) if no deeper stop was called for, spend the time of the first stop at the next deeper stop and complete the total schedule (Example 22).

Example 22:

Dive = 130 fsw/40 min	Same as Example 21
<u>Situation</u> On ascent to 40 fsw stop, diver loses control and surfaces (blow-up). Diver is asymptomatic and RCC is not available.	
<u>Reaction</u> Recompress immediately to 50 fsw for 5 min and then complete total schedule.	

5. VIOLATION OF 7 MINUTE SURFACE INTERVAL (SurD O₂)
(Diver shows no symptoms.)

- a. Use Treatment Table 5 (Canadian Forces Diving Manual/ US Navy Diving Manual) if less than 30 minutes omitted decompression, or,
- b. Use Treatment Table 6 if greater than or equal to 30 minutes omitted decompression.

6. FLYING AFTER DIVING

- a. After a No-Decompression dive, allow enough Surface Interval time to elapse for the RF to diminish to 1.0 before flying.
- b. After a Decompression dive, a minimum of 24 hours is required before flying.

7. DECOMPRESSION STRESS DURING SURFACE INTERVAL (SurD O₂)

During the Surface Interval (SI) of a SurD O₂ dive, the required decompression has been intentionally violated in order to take the diver out of the water and complete the decompression in a recompression chamber. At the completion of the SI, the diver is repressurized in the chamber to a depth of 40 fsw (12 msw), deeper than called for by the decompression model. The diver is given additional decompression during the chamber phase of the SurD O₂ profile to compensate for the increased stress of the SI.

During the SI, the diver is exposed to a higher level of decompression stress than would be encountered if in-water decompression only had been executed. Therefore, the diver may experience signs and/or symptoms of decompression stress. Manned validation has indicated that when symptoms do occur during the SI, they are almost always very mild and late into the SI. In addition,

AIR DIVING TABLES

the symptoms usually completely resolve during the press to 40 fsw (12 msw) in the chamber. Experimental dives have demonstrated that the divers who experienced SI symptoms had the same incidence of DCS after the completion of the dive as those divers who did not experience signs or symptoms during the SI.

Therefore, during SurD O₂ diving, when all signs and symptoms of SI stress have completely resolved by the time the diver is confirmed on oxygen at 40 fsw (12 msw), the decompression profile is to be completed as planned.

When the signs and symptoms of SI stress have not completely resolved by the time the diver is confirmed on oxygen at 40 fsw (12 msw), it should be treated as decompression sickness. The diver must be immediately pressed to 60 fsw, a Treatment Table 6 initiated, and the Diving Medical Officer contacted.

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APPENDIX A

DCIEM AIR DIVING TABLES

(FEET)

DCIEM DIVING MANUAL

TABLE 1

STANDARD AIR DECOMPRESSION

(FEET)

The Department of National Defence (Canada), Defence and Civil Institute of Environmental Medicine (DCIEM), and Universal Dive Techtronics, Inc. (UDT) disclaim any and all responsibilities for the use of these tables and procedures.

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AIR DIVING TABLES

TABLE 1: STANDARD AIR DECOMPRESSION (FEET)

Depth (fsw)	Bottom Time (min)	Stop Times (min) at Different Depths (fsw)								Decom. Time (min)	Repet. Group
		80	70	60	50	40	30	20	10		
20	30	-	-	-	-	-	-	-	-	1	A
	60	-	-	-	-	-	-	-	-	1	B
	90	-	-	-	-	-	-	-	-	1	C
	120	-	-	-	-	-	-	-	-	1	D
	150	-	-	-	-	-	-	-	-	1	E
	180	-	-	-	-	-	-	-	-	1	F
	240	-	-	-	-	-	-	-	-	1	G
	300	-	-	-	-	-	-	-	-	1	H
	360	-	-	-	-	-	-	-	-	1	I
	420	-	-	-	-	-	-	-	-	1	J
	480	-	-	-	-	-	-	-	-	1	K
	600	-	-	-	-	-	-	-	-	1	L
	720	-	-	-	-	-	-	-	-	1	M
30	30	-	-	-	-	-	-	-	-	1	A
	60	-	-	-	-	-	-	-	-	1	C
	90	-	-	-	-	-	-	-	-	1	D
	120	-	-	-	-	-	-	-	-	1	F
	150	-	-	-	-	-	-	-	-	1	G
	180	-	-	-	-	-	-	-	-	1	H
	210	-	-	-	-	-	-	-	-	1	J
	240	-	-	-	-	-	-	-	-	1	K
	270	-	-	-	-	-	-	-	-	1	L
	300	-	-	-	-	-	-	-	-	1	M
	330	-	-	-	-	-	-	-	3	3	N
	360	-	-	-	-	-	-	-	5	5	O
	390	-	-	-	-	-	-	-	7	7	
	400	-	-	-	-	-	-	-	10	10	
	420	-	-	-	-	-	-	-	14	14	
	450	-	-	-	-	-	-	-	19	19	
	480	-	-	-	-	-	-	-	23	23	

TABLE 1: STANDARD AIR DECOMPRESSION (FEET)

Depth (fsw)	Bottom Time (min)	Stop Times (min) at Different Depths (fsw)								Decom. Time (min)	Repet. Group
		80	70	60	50	40	30	20	10		
40	20	-	-	-	-	-	-	-	-	1	A
	30	-	-	-	-	-	-	-	-	1	B
	60	-	-	-	-	-	-	-	-	1	D
	90	-	-	-	-	-	-	-	-	1	G
	120	-	-	-	-	-	-	-	-	1	H
	150	-	-	-	-	-	-	-	-	1	J
	160	-	-	-	-	-	-	-	3	3	K
	170	-	-	-	-	-	-	-	5	5	L
	180	-	-	-	-	-	-	-	8	8	M
	190	-	-	-	-	-	-	-	10	10	
	200	-	-	-	-	-	-	-	14	14	
	210	-	-	-	-	-	-	-	18	18	
	240	-	-	-	-	-	-	-	28	28	
	270	-	-	-	-	-	-	-	38	38	
	300	-	-	-	-	-	-	-	48	48	
	330	-	-	-	-	-	-	-	57	57	
	360	-	-	-	-	-	-	-	66	66	
50	10	-	-	-	-	-	-	-	-	1	A
	20	-	-	-	-	-	-	-	-	1	B
	30	-	-	-	-	-	-	-	-	1	C
	40	-	-	-	-	-	-	-	-	1	D
	50	-	-	-	-	-	-	-	-	1	E
	60	-	-	-	-	-	-	-	-	1	F
	75	-	-	-	-	-	-	-	-	1	G
	100	-	-	-	-	-	-	-	6	6	I
	120	-	-	-	-	-	-	-	12	12	K
	130	-	-	-	-	-	-	-	18	18	L
	140	-	-	-	-	-	-	-	24	24	M
	150	-	-	-	-	-	-	-	29	29	
	160	-	-	-	-	-	-	-	33	33	
	170	-	-	-	-	-	-	-	38	38	
	180	-	-	-	-	-	-	-	43	43	
	200	-	-	-	-	-	-	-	53	53	
	220	-	-	-	-	-	-	-	63	63	
	240	-	-	-	-	-	-	-	74	74	
	260	-	-	-	-	-	-	-	86	86	
	280	-	-	-	-	-	-	-	97	97	

AIR DIVING TABLES

TABLE 1: STANDARD AIR DECOMPRESSION (FEET)

Depth (fsw)	Bottom Time (min)	Stop Times (min) at Different Depths (fsw)								Decom. Time (min)	Repet. Group
		80	70	60	50	40	30	20	10		
60	10	-	-	-	-	-	-	-	-	1	A
	20	-	-	-	-	-	-	-	-	1	B
	30	-	-	-	-	-	-	-	-	1	D
	40	-	-	-	-	-	-	-	-	1	E
	50	-	-	-	-	-	-	-	-	1	F
	60	-	-	-	-	-	-	-	5	5	G
	80	-	-	-	-	-	-	-	10	10	I
	90	-	-	-	-	-	-	-	19	19	J
	100	-	-	-	-	-	-	-	26	26	K
	110	-	-	-	-	-	-	-	32	32	L
	120	-	-	-	-	-	-	2	37	39	M
	130	-	-	-	-	-	-	2	43	45	
	140	-	-	-	-	-	-	3	49	52	
	150	-	-	-	-	-	-	3	55	58	
	160	-	-	-	-	-	-	4	62	66	
	170	-	-	-	-	-	-	4	70	74	
	180	-	-	-	-	-	-	5	77	82	
	190	-	-	-	-	-	-	5	85	90	
	200	-	-	-	-	-	-	11	90	101	
	210	-	-	-	-	-	-	15	96	111	
	220	-	-	-	-	-	-	19	102	121	
	230	-	-	-	-	-	-	23	108	131	
	240	-	-	-	-	-	-	27	114	141	

TABLE 1: STANDARD AIR DECOMPRESSION (FEET)

Depth (fsw)	Bottom Time (min)	Stop Times (min) at Different Depths (fsw)								Decom. Time (min)	Repet. Group
		80	70	60	50	40	30	20	10		
70	10	-	-	-	-	-	-	-	-	1	A
	20	-	-	-	-	-	-	-	-	1	C
	25	-	-	-	-	-	-	-	-	1	D
	35	-	-	-	-	-	-	-	-	1	E
	40	-	-	-	-	-	-	-	5	5	F
	50	-	-	-	-	-	-	-	10	10	G
	60	-	-	-	-	-	-	2	11	13	H
	70	-	-	-	-	-	-	3	19	22	J
	80	-	-	-	-	-	-	4	27	31	K
	90	-	-	-	-	-	-	5	34	39	M
	100	-	-	-	-	-	-	6	41	47	N
	110	-	-	-	-	-	-	7	48	55	
	120	-	-	-	-	-	-	8	56	64	
	130	-	-	-	-	-	-	9	65	74	
	140	-	-	-	-	-	-	11	74	85	
	150	-	-	-	-	-	-	17	81	98	
	160	-	-	-	-	-	-	22	89	111	
	170	-	-	-	-	-	-	27	98	125	
	180	-	-	-	-	-	-	31	107	138	
	190	-	-	-	-	-	-	36	115	151	
	200	-	-	-	-	-	2	39	123	164	

AIR DIVING TABLES

TABLE 1: STANDARD AIR DECOMPRESSION (FEET)

Depth (fsw)	Bottom Time (min)	Stop Times (min) at Different Depths (fsw)								Decom. Time (min)	Repet. Group
		80	70	60	50	40	30	20	10		
80	10	-	-	-	-	-	-	-	-	2	A
	15	-	-	-	-	-	-	-	-	2	C
	20	-	-	-	-	-	-	-	-	2	D
	25	-	-	-	-	-	-	-	-	2	E
	30	-	-	-	-	-	-	-	6	6	F
	40	-	-	-	-	-	-	2	10	12	G
	50	-	-	-	-	-	-	4	12	16	H
	55	-	-	-	-	-	-	5	17	22	I
	60	-	-	-	-	-	-	6	22	28	J
	65	-	-	-	-	-	-	7	27	34	J
	70	-	-	-	-	-	-	8	31	39	K
	75	-	-	-	-	-	-	9	35	44	L
	80	-	-	-	-	-	-	9	40	49	M
	85	-	-	-	-	-	-	10	44	54	
	90	-	-	-	-	-	-	11	48	59	
	95	-	-	-	-	-	-	11	53	64	
	100	-	-	-	-	-	2	10	58	70	
	110	-	-	-	-	-	3	14	66	83	
	120	-	-	-	-	-	3	20	76	99	
	130	-	-	-	-	-	4	24	87	115	
	140	-	-	-	-	-	5	29	98	132	
	150	-	-	-	-	-	5	35	109	149	
	160	-	-	-	-	-	6	40	120	166	

DCIEM DIVING MANUAL

TABLE 1: STANDARD AIR DECOMPRESSION (FEET)

Depth (fsw)	Bottom Time (min)	Stop Times (min) at Different Depths (fsw)								Decom. Time (min)	Repet. Group
		80	70	60	50	40	30	20	10		
90	5	-	-	-	-	-	-	-	-	2	A
	10	-	-	-	-	-	-	-	-	2	B
	15	-	-	-	-	-	-	-	-	2	C
	20	-	-	-	-	-	-	-	-	2	D
	25	-	-	-	-	-	-	-	8	8	E
	30	-	-	-	-	-	-	3	9	12	F
	40	-	-	-	-	-	-	6	11	17	H
	45	-	-	-	-	-	-	7	16	23	I
	50	-	-	-	-	-	-	9	21	30	J
	55	-	-	-	-	-	-	10	27	37	K
	60	-	-	-	-	-	2	9	32	43	L
	65	-	-	-	-	-	3	9	37	49	
	70	-	-	-	-	-	4	9	42	55	
	75	-	-	-	-	-	4	10	47	61	
	80	-	-	-	-	-	5	10	53	68	
	85	-	-	-	-	-	5	11	59	75	
	90	-	-	-	-	-	6	15	62	83	
	95	-	-	-	-	-	6	18	68	92	
	100	-	-	-	-	-	7	21	73	101	
	110	-	-	-	-	-	8	26	87	121	
	120	-	-	-	-	-	8	33	101	142	

AIR DIVING TABLES

TABLE 1: STANDARD AIR DECOMPRESSION (FEET)

Depth (fsw)	Bottom Time (min)	Stop Times (min) at Different Depths (fsw)								Decom. Time (min)	Repet. Group
		80	70	60	50	40	30	20	10		
100	5	-	-	-	-	-	-	-	-	2	A
	10	-	-	-	-	-	-	-	-	2	B
	15	-	-	-	-	-	-	-	-	2	D
	20	-	-	-	-	-	-	-	8	8	E
	25	-	-	-	-	-	-	3	10	13	F
	30	-	-	-	-	-	-	6	10	16	G
	35	-	-	-	-	-	-	8	11	19	H
	40	-	-	-	-	-	-	9	18	27	I
	45	-	-	-	-	-	3	8	25	36	J
	50	-	-	-	-	-	4	9	30	43	K
	55	-	-	-	-	-	5	9	37	51	L
	60	-	-	-	-	-	6	9	43	58	
	65	-	-	-	-	-	7	10	48	65	
	70	-	-	-	-	-	8	10	55	73	
	75	-	-	-	-	-	8	15	59	82	
	80	-	-	-	-	-	9	18	65	92	
	85	-	-	-	-	2	8	22	71	103	
	90	-	-	-	-	2	8	25	79	114	
	95	-	-	-	-	3	8	29	87	127	
	100	-	-	-	-	3	9	32	95	139	
	105	-	-	-	-	4	8	36	104	152	
	110	-	-	-	-	4	9	39	112	164	

TABLE 1: STANDARD AIR DECOMPRESSION (FEET)

Depth (fsw)	Bottom Time (min)	Stop Times (min) at Different Depths (fsw)								Decom. Time (min)	Repet. Group
		80	70	60	50	40	30	20	10		
110	5	-	-	-	-	-	-	-	-	2	A
	10	-	-	-	-	-	-	-	-	2	B
	12	-	-	-	-	-	-	-	-	2	C
	15	-	-	-	-	-	-	-	5	5	D
	20	-	-	-	-	-	-	3	9	12	F
	25	-	-	-	-	-	-	6	10	16	G
	30	-	-	-	-	-	-	9	11	20	H
	35	-	-	-	-	-	4	7	19	30	I
	40	-	-	-	-	-	5	8	26	39	J
	45	-	-	-	-	-	6	9	33	48	K
	50	-	-	-	-	-	8	9	39	56	M
	55	-	-	-	-	-	9	9	46	64	N
	60	-	-	-	-	3	7	11	53	74	
	65	-	-	-	-	3	8	16	58	85	
	70	-	-	-	-	4	8	20	64	96	
	75	-	-	-	-	5	8	23	73	109	
	80	-	-	-	-	5	8	28	81	122	
	85	-	-	-	-	6	8	32	91	137	
	90	-	-	-	-	6	9	35	101	151	
	95	-	-	-	-	7	9	40	111	167	
	100	-	-	-	-	7	10	44	120	181	
	105	-	-	-	-	8	13	46	129	196	
	110	-	-	-	-	8	16	50	136	210	

AIR DIVING TABLES

TABLE 1: STANDARD AIR DECOMPRESSION (FEET)

Depth (fsw)	Bottom Time (min)	Stop Times (min) at Different Depths (fsw)								Decom. Time (min)	Repet. Group
		80	70	60	50	40	30	20	10		
120	5	-	-	-	-	-	-	-	-	2	A
	10	-	-	-	-	-	-	-	-	2	C
	15	-	-	-	-	-	-	-	10	10	E
	20	-	-	-	-	-	-	5	10	15	F
	25	-	-	-	-	-	-	9	11	20	G
	30	-	-	-	-	-	5	7	17	29	I
	35	-	-	-	-	-	6	9	25	40	J
	40	-	-	-	-	-	8	9	33	50	K
	45	-	-	-	-	3	7	9	41	60	M
	50	-	-	-	-	4	7	10	49	70	N
	55	-	-	-	-	5	7	15	54	81	
	60	-	-	-	-	6	8	19	61	94	
	65	-	-	-	-	7	8	23	70	108	
	70	-	-	-	-	7	9	27	80	123	
	75	-	-	-	2	6	9	32	91	140	
	80	-	-	-	3	6	9	37	103	158	
	85	-	-	-	3	7	10	41	114	175	
	90	-	-	-	3	7	14	44	124	192	
	95	-	-	-	4	7	16	49	134	210	
	100	-	-	-	4	7	20	53	142	226	

TABLE 1: STANDARD AIR DECOMPRESSION (FEET)

Depth (fsw)	Bottom Time (min)	Stop Times (min) at Different Depths (fsw)								Decom. Time (min)	Repet. Group
		80	70	60	50	40	30	20	10		
130	5	-	-	-	-	-	-	-	-	2	A
	8	-	-	-	-	-	-	-	-	2	B
	10	-	-	-	-	-	-	-	5	5	C
	15	-	-	-	-	-	-	4	9	13	E
	20	-	-	-	-	-	-	8	10	18	G
	25	-	-	-	-	-	5	7	12	24	H
	30	-	-	-	-	-	7	8	23	38	J
	35	-	-	-	-	3	6	9	32	50	K
	40	-	-	-	-	5	6	10	40	61	M
	45	-	-	-	-	6	7	10	50	73	N
	50	-	-	-	-	7	8	16	55	86	
	55	-	-	-	2	6	8	21	64	101	
	60	-	-	-	3	6	8	26	75	118	
	65	-	-	-	4	6	9	31	86	136	
	70	-	-	-	5	6	9	36	100	156	
	75	-	-	-	5	7	11	40	113	176	
	80	-	-	-	6	7	15	44	125	197	
	85	-	-	-	6	7	18	49	135	215	
	90	-	-	-	7	7	22	54	144	234	
140	7	-	-	-	-	-	-	-	-	2	B
	10	-	-	-	-	-	-	-	7	7	D
	15	-	-	-	-	-	-	6	9	15	F
	20	-	-	-	-	-	4	7	11	22	G
	25	-	-	-	-	-	7	8	19	34	I
	30	-	-	-	-	4	6	9	29	48	K
	35	-	-	-	-	6	6	10	39	61	L
	40	-	-	-	-	7	7	10	49	73	N
	45	-	-	-	3	6	7	17	56	89	O
	50	-	-	-	4	6	8	22	65	105	
	55	-	-	-	5	6	9	27	78	125	
	60	-	-	-	6	6	9	33	91	145	
	65	-	-	-	7	6	11	38	106	168	
	70	-	-	2	5	7	15	42	120	191	
	75	-	-	3	5	8	18	47	133	214	
	80	-	-	3	6	8	21	54	143	235	
	85	-	-	4	6	8	25	61	151	255	
	90	-	-	4	6	8	30	68	157	273	

AIR DIVING TABLES

TABLE 1: STANDARD AIR DECOMPRESSION (FEET)

Depth (fsw)	Bottom Time (min)	Stop Times (min) at Different Depths (fsw)								Decom. Time (min)	Repet. Group
		80	70	60	50	40	30	20	10		
150	6	-	-	-	-	-	-	-	-	3	B
	10	-	-	-	-	-	-	-	9	9	D
	15	-	-	-	-	-	-	8	10	18	F
	20	-	-	-	-	-	6	8	11	25	H
	25	-	-	-	-	4	6	8	25	43	J
	30	-	-	-	-	6	7	9	35	57	K
	35	-	-	-	3	5	7	10	46	71	M
	40	-	-	-	4	6	8	16	54	88	O
	45	-	-	-	6	6	8	22	65	107	
	50	-	-	-	7	6	9	28	78	128	
	55	-	-	3	5	6	10	34	94	152	
	60	-	-	4	5	7	13	39	110	178	
	65	-	-	4	6	7	17	44	125	203	
	70	-	-	5	6	7	21	50	139	228	
	75	-	-	6	5	8	25	58	148	250	
	80	-	-	6	6	8	29	67	155	271	
160	6	-	-	-	-	-	-	-	-	3	B
	10	-	-	-	-	-	-	3	9	12	D
	15	-	-	-	-	-	4	7	10	21	G
	20	-	-	-	-	3	5	8	16	32	H
	25	-	-	-	-	6	6	9	30	51	K
	30	-	-	-	4	5	6	10	42	67	M
	35	-	-	-	5	6	7	14	52	84	N
	40	-	-	-	7	6	8	21	62	104	
	45	-	-	3	5	6	9	28	76	127	
	50	-	-	4	5	7	9	35	93	153	
	55	-	-	5	6	7	14	39	112	183	
	60	-	-	6	6	7	18	45	129	211	
	65	-	3	4	6	8	22	53	142	238	
	70	-	3	5	6	8	27	62	152	263	

TABLE 1: STANDARD AIR DECOMPRESSION (FEET)

Depth (fsw)	Bottom Time (min)	Stop Times (min) at Different Depths (fsw)								Decom. Time (min)	Repet. Group
		80	70	60	50	40	30	20	10		
170	5	-	-	-	-	-	-	-	-	3	B
	10	-	-	-	-	-	-	5	9	14	D
	15	-	-	-	-	-	6	7	10	23	G
	20	-	-	-	-	5	6	8	22	41	I
	25	-	-	-	3	5	6	10	35	59	K
	30	-	-	-	6	5	7	11	48	77	M
	35	-	-	3	4	6	8	19	58	98	O
	40	-	-	4	5	6	9	26	72	122	
	45	-	-	6	5	6	10	34	91	152	
	50	-	3	4	5	7	14	39	111	183	
	55	-	3	5	5	8	19	45	129	214	
	60	-	4	5	6	8	23	54	144	244	
180	5	-	-	-	-	-	-	-	-	3	B
	10	-	-	-	-	-	-	7	9	16	E
	15	-	-	-	-	-	8	7	11	26	H
	20	-	-	-	-	7	6	8	27	48	J
	25	-	-	-	5	5	7	10	40	67	M
	30	-	-	3	5	5	8	15	53	89	O
	35	-	-	5	5	6	8	24	66	114	
	40	-	3	4	5	6	9	32	85	144	
	45	-	4	4	5	7	14	38	107	179	
	50	-	5	4	6	7	19	45	127	213	
	55	-	5	5	6	8	24	53	144	245	
	60	3	3	5	7	9	29	65	155	276	

AIR DIVING TABLES

TABLE 1: STANDARD AIR DECOMPRESSION (FEET)

Depth (fsw)	Bottom Time (min)	Stop Times (min) at Different Depths (fsw)										Decom. Time (min)
		100	90	80	70	60	50	40	30	20	10	
190	5	-	-	-	-	-	-	-	-	-	-	3
	10	-	-	-	-	-	-	-	-	8	10	18
	15	-	-	-	-	-	-	4	5	8	13	30
	20	-	-	-	-	-	4	5	6	9	31	55
	25	-	-	-	-	3	4	5	7	11	46	76
	30	-	-	-	-	5	5	5	8	20	58	101
	35	-	-	-	3	4	5	6	9	29	76	132
	40	-	-	-	5	4	5	7	12	36	100	169
	45	-	-	-	6	4	6	7	18	43	123	207
	50	-	-	3	4	4	6	8	24	52	141	242
	55	-	-	4	4	5	6	10	28	65	154	276
200	5	-	-	-	-	-	-	-	-	-	4	4
	10	-	-	-	-	-	-	-	4	6	10	20
	15	-	-	-	-	-	-	6	5	8	18	37
	20	-	-	-	-	-	6	4	7	9	36	62
	25	-	-	-	-	5	4	5	8	14	51	87
	30	-	-	-	3	4	5	6	8	24	67	117
	35	-	-	-	5	4	5	7	9	34	89	153
	40	-	-	3	3	5	5	8	16	40	115	195
	45	-	-	4	4	4	6	8	22	49	137	234
	50	-	-	5	4	5	6	10	27	62	153	272
210	5	-	-	-	-	-	-	-	-	-	6	6
	10	-	-	-	-	-	-	-	5	7	10	22
	15	-	-	-	-	-	-	7	6	8	22	43
	20	-	-	-	-	4	3	5	7	10	40	69
	25	-	-	-	-	6	5	5	8	18	55	97
	30	-	-	-	5	4	5	6	9	29	76	134
	35	-	-	3	4	4	5	7	14	36	103	176
	40	-	-	5	3	5	6	8	19	46	130	222
	45	-	-	6	4	4	7	8	27	57	149	262
	50	-	3	4	4	5	7	13	31	74	160	301

TABLE 1: STANDARD AIR DECOMPRESSION (FEET)

Depth (fsw)	Bottom Time (min)	Stop Times (min) at Different Depths (fsw)										Decom. Time (min)
		100	90	80	70	60	50	40	30	20	10	
220	5	-	-	-	-	-	-	-	-	-	7	7
	10	-	-	-	-	-	-	-	7	7	10	24
	15	-	-	-	-	-	5	4	6	8	27	50
	20	-	-	-	-	5	4	5	7	10	46	77
	25	-	-	-	4	4	4	6	9	22	61	110
	30	-	-	3	4	4	5	7	9	33	87	152
	35	-	-	5	3	5	5	8	17	40	117	200
	40	-	3	3	4	5	6	8	24	52	142	247
	45	-	4	3	4	6	6	12	29	68	157	289
230	5	-	-	-	-	-	-	-	-	-	8	8
	10	-	-	-	-	-	-	-	8	7	11	26
	15	-	-	-	-	-	6	4	7	9	30	56
	20	-	-	-	-	6	4	6	7	14	48	85
	25	-	-	-	6	4	4	7	8	26	69	124
	30	-	-	5	3	4	6	7	12	36	100	173
	35	-	4	3	3	5	6	8	20	46	131	226
	40	-	5	3	4	5	6	10	27	61	151	272
240	5	-	-	-	-	-	-	-	-	-	9	9
	10	-	-	-	-	-	-	5	5	7	11	28
	15	-	-	-	-	-	7	5	6	9	34	61
	20	-	-	-	5	3	4	6	8	17	53	96
	25	-	-	4	3	4	5	7	9	29	78	139
	30	-	4	2	4	4	6	7	16	39	113	195
	35	-	5	3	4	5	6	8	24	52	142	249
	40	4	2	4	4	5	7	13	30	71	159	299

TABLE 1S

SHORT STANDARD AIR

DECOMPRESSION (FEET)

The Department of National Defence (Canada), Defence and Civil Institute of Environmental Medicine (DCIEM), and Universal Dive Techtronics, Inc. (UDT) disclaim any and all responsibilities for the use of these tables and procedures.

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AIR DIVING TABLES

TABLE 1S: SHORT STANDARD AIR DECOMPRESSION (FEET)

Depth (fsw)	No-Decompression Bottom Times (min)				Decompression Required Bottom Times (min)			
20	30 A 60 B 90 C 120 D	150 E 180 F 240 G 300 H	360 I 420 J 480 K 600 L	720 M ∞				
30	30 A 45 B 60 C 90 D	100 E 120 F 150 G 180 H	190 I 210 J 240 K 270 L	300 M	330 N 360 O	400	420	450
40	22 A 30 B 40 C	60 D 70 E 80 F	90 G 120 H 130 I	150 J	160 K 170 L	180 M 190	200	215
50	18 A 25 B	30 C 40 D	50 E 60 F	75 G	85 H 95 I	105 J 115 K	124 L	132 M
60	14 A 20 B	25 C 30 D	40 E	50 F	60 G	70 H 80 I	85 J	92 K
Decompression Time in minutes at			10 fsw		5	10	15	20
70	12 A 15 B	20 C	25 D	35 E	40 F	50 G	63 I	66 J
80	10 A 13 B	15 C	20 D	25 E	29 F	35 G	48 H	52 I
90	9 A	12 B	15 C	20 D	23 E	27 F	35 G	43 I
100	7 A	10 B	12 C	15 D	18 D	21 E	29 G	36 H
110		6 A	10 B	12 C	15 D	18 E	22 F	30 H
120		6 A	8 B	10 C	12 D	15 E	19 F	25 G
130			5 A	8 B	10 C	13 D	16 F	21 G
140			5 A	7 B	9 C	11 D	14 F	18 G
150			4 A	6 B	8 C	10 D	12 E	15 F
Decompression Time in minutes at			20 fsw		-	-	5	10
			10 fsw		5	10	10	10

DCIEM DIVING MANUAL

TABLE 2

IN-WATER OXYGEN DECOMPRESSION

(FEET)

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AIR DIVING TABLES

TABLE 2: IN-WATER OXYGEN DECOMPRESSION (FEET)

Depth (fsw)	Bottom Time (min)	Stop Times (min) at Different Depths (fsw)						Decom. Time (min)	Repet. Group
		Air					O ₂		
		80	70	60	50	40	30		
50	75	-	-	-	-	-	-	1	G
	115	-	-	-	-	-	5	6	J
	130	-	-	-	-	-	12	13	J
	140	-	-	-	-	-	15	16	K
	160	-	-	-	-	-	20	21	
	180	-	-	-	-	-	24	25	
	200	-	-	-	-	-	28	29	
	220	-	-	-	-	-	32	33	
	240	-	-	-	-	-	36	37	
	260	-	-	-	-	-	39	40	
	280	-	-	-	-	-	43	44	
60	50	-	-	-	-	-	-	1	F
	75	-	-	-	-	-	5	6	H
	90	-	-	-	-	-	12	13	J
	100	-	-	-	-	-	16	17	J
	110	-	-	-	-	-	20	21	K
	120	-	-	-	-	-	23	24	K
	140	-	-	-	-	-	29	30	
	160	-	-	-	-	-	35	36	
	180	-	-	-	-	-	40	41	
	200	-	-	-	-	-	45	46	
	220	-	-	-	-	-	50	51	
	240	-	-	-	-	-	55	56	

O₂ stop times do not include ascent time to 30 fsw

TABLE 2: IN-WATER OXYGEN DECOMPRESSION (FEET)

Depth (fsw)	Bottom Time (min)	Stop Times (min) at Different Depths (fsw)						Decom. Time (min)	Repet. Group
		Air					O ₂		
		80	70	60	50	40	30		
70	35	-	-	-	-	-	-	1	E
	50	-	-	-	-	-	6	8	G
	70	-	-	-	-	-	14	16	I
	80	-	-	-	-	-	19	21	J
	90	-	-	-	-	-	24	26	K
	100	-	-	-	-	-	28	30	K
	110	-	-	-	-	-	32	34	
	120	-	-	-	-	-	35	37	
	130	-	-	-	-	-	39	41	
	140	-	-	-	-	-	42	44	
	150	-	-	-	-	-	45	47	
	160	-	-	-	-	-	49	51	
	170	-	-	-	-	-	52	54	
	180	-	-	-	-	-	56	58	
	190	-	-	-	-	-	59	61	
	200	-	-	-	-	-	62	64	
80	25	-	-	-	-	-	-	2	E
	30	-	-	-	-	-	5	7	F
	50	-	-	-	-	-	9	11	H
	55	-	-	-	-	-	14	16	H
	60	-	-	-	-	-	18	20	I
	70	-	-	-	-	-	24	26	J
	80	-	-	-	-	-	29	31	K
	90	-	-	-	-	-	34	36	
	100	-	-	-	-	-	38	40	
	110	-	-	-	-	-	42	44	
	120	-	-	-	-	-	47	49	
	130	-	-	-	-	-	51	53	
	140	-	-	-	-	-	55	57	
	150	-	-	-	-	-	60	62	
	160	-	-	-	-	-	64	66	

O₂ stop times do not include ascent time to 30 fsw

AIR DIVING TABLES

TABLE 2: IN-WATER OXYGEN DECOMPRESSION (FEET)

Depth (fsw)	Bottom Time (min)	Stop Times (min) at Different Depths (fsw)						Decom. Time (min)	Repet. Group
		Air					O ₂		
		80	70	60	50	40	30		
90	20	-	-	-	-	-	-	2	D
	25	-	-	-	-	-	5	7	E
	40	-	-	-	-	-	10	12	G
	45	-	-	-	-	-	13	15	H
	50	-	-	-	-	-	19	21	H
	55	-	-	-	-	-	23	25	I
	60	-	-	-	-	-	26	28	J
	70	-	-	-	-	-	32	34	
	80	-	-	-	-	-	38	40	
	90	-	-	-	-	-	43	45	
	100	-	-	-	-	-	48	50	
	110	-	-	-	-	-	53	55	
	120	-	-	-	-	-	59	61	
100	15	-	-	-	-	-	-	2	D
	20	-	-	-	-	-	5	7	E
	30	-	-	-	-	-	9	11	F
	35	-	-	-	-	-	11	13	G
	40	-	-	-	-	-	16	18	H
	45	-	-	-	-	-	22	24	I
	50	-	-	-	-	-	26	28	I
	55	-	-	-	-	-	30	32	J
	60	-	-	-	-	-	34	36	
	70	-	-	-	-	-	40	42	
	80	-	-	-	-	-	46	48	
	90	-	-	-	-	2	52	55	
	100	-	-	-	-	3	58	62	
	110	-	-	-	-	4	64	69	
O ₂ stop times do not include ascent time to 30 fsw									

TABLE 2: IN-WATER OXYGEN DECOMPRESSION (FEET)

Depth (fsw)	Bottom Time (min)	Stop Times (min) at Different Depths (fsw)						Decom. Time (min)	Repet. Group
		Air					O ₂		
		80	70	60	50	40	30		
110	12	-	-	-	-	-	-	2	C
	20	-	-	-	-	-	7	9	E
	25	-	-	-	-	-	9	11	F
	30	-	-	-	-	-	11	13	G
	35	-	-	-	-	-	17	19	H
	40	-	-	-	-	-	23	25	I
	45	-	-	-	-	-	28	30	J
	50	-	-	-	-	-	33	35	K
	55	-	-	-	-	-	37	39	K
	60	-	-	-	-	3	40	44	
	65	-	-	-	-	3	44	48	
	70	-	-	-	-	4	47	52	
	75	-	-	-	-	5	50	56	
	80	-	-	-	-	5	54	60	
	85	-	-	-	-	6	57	64	
	90	-	-	-	-	6	61	68	
	95	-	-	-	-	7	64	72	
	100	-	-	-	-	7	68	76	
	105	-	-	-	-	8	71	80	
	110	-	-	-	-	8	75	84	

O₂ stop times do not include ascent time to 30 fsw

TABLE 2: IN-WATER OXYGEN DECOMPRESSION (FEET)

Depth (fsw)	Bottom Time (min)	Stop Times (min) at Different Depths (fsw)						Decom. Time (min)	Repet. Group
		Air					O ₂		
		80	70	60	50	40	30		
120	10	-	-	-	-	-	-	2	C
	15	-	-	-	-	-	6	8	E
	20	-	-	-	-	-	9	11	F
	25	-	-	-	-	-	11	13	G
	30	-	-	-	-	-	15	17	H
	35	-	-	-	-	-	24	26	H
	40	-	-	-	-	-	29	31	I
	45	-	-	-	-	3	34	38	J
	50	-	-	-	-	4	38	43	K
	55	-	-	-	-	5	42	48	
	60	-	-	-	-	6	46	53	
	65	-	-	-	-	7	50	58	
	70	-	-	-	-	7	54	62	
	75	-	-	-	2	6	58	67	
	80	-	-	-	3	6	62	72	
	85	-	-	-	3	7	66	77	
	90	-	-	-	3	7	70	81	
	95	-	-	-	4	7	74	86	
	100	-	-	-	4	7	79	91	
O ₂ stop times do not include ascent time to 30 fsw									

TABLE 2: IN-WATER OXYGEN DECOMPRESSION (FEET)

Depth (fsw)	Bottom Time (min)	Stop Times (min) at Different Depths (fsw)						Decom. Time (min)	Repet. Group
		Air					O ₂		
		80	70	60	50	40	30		
130	8	-	-	-	-	-	-	2	B
	15	-	-	-	-	-	7	10	E
	20	-	-	-	-	-	10	13	G
	25	-	-	-	-	-	13	16	G
	30	-	-	-	-	-	22	25	H
	35	-	-	-	-	3	29	33	I
	40	-	-	-	-	5	34	40	J
	45	-	-	-	-	6	39	46	L
	50	-	-	-	-	7	43	51	
	55	-	-	-	2	6	48	57	
	60	-	-	-	3	6	52	62	
	65	-	-	-	4	6	56	67	
	70	-	-	-	5	6	61	73	
	75	-	-	-	5	7	65	78	
	80	-	-	-	6	7	70	84	
	85	-	-	-	6	7	75	89	
	90	-	-	-	7	7	80	95	
140	7	-	-	-	-	-	-	3	B
	10	-	-	-	-	-	4	7	D
	15	-	-	-	-	-	9	12	D
	20	-	-	-	-	-	12	15	G
	25	-	-	-	-	-	18	21	H
	30	-	-	-	-	4	27	32	I
	35	-	-	-	-	6	33	40	J
	40	-	-	-	-	7	39	47	K
	45	-	-	-	3	6	44	54	M
	50	-	-	-	4	6	49	60	
	55	-	-	-	5	6	53	65	
	60	-	-	-	6	6	58	71	
	65	-	-	-	7	6	64	78	
	70	-	-	2	5	7	69	84	
	75	-	-	3	5	8	74	91	
	80	-	-	3	6	8	80	98	
	85	-	-	4	6	8	85	104	
	90	-	-	4	6	8	91	110	

O₂ stop times do not include ascent time to 30 fsw

AIR DIVING TABLES

TABLE 2: IN-WATER OXYGEN DECOMPRESSION (FEET)

Depth (fsw)	Bottom Time (min)	Stop Times (min) at Different Depths (fsw)						Decom. Time (min)	Repet. Group
		Air					O ₂		
		80	70	60	50	40	30		
150	6	-	-	-	-	-	-	3	B
	10	-	-	-	-	-	5	8	D
	15	-	-	-	-	-	10	13	F
	20	-	-	-	-	-	14	17	G
	25	-	-	-	-	4	24	29	H
	30	-	-	-	-	6	31	38	I
	35	-	-	-	3	5	37	46	K
	40	-	-	-	4	6	43	54	M
	45	-	-	-	6	6	48	61	
	50	-	-	-	7	6	54	68	
	55	-	-	3	5	6	60	75	
	60	-	-	4	5	7	65	82	
	65	-	-	4	6	7	71	89	
	70	-	-	5	6	7	77	96	
	75	-	-	6	5	8	84	104	
	80	-	-	6	6	8	90	111	
160	6	-	-	-	-	-	-	3	B
	10	-	-	-	-	-	6	9	E
	15	-	-	-	-	-	11	14	F
	20	-	-	-	-	3	16	20	G
	25	-	-	-	-	6	28	35	I
	30	-	-	-	4	5	35	45	J
	35	-	-	-	5	6	41	53	L
	40	-	-	-	7	6	47	61	
	45	-	-	3	5	6	54	69	
	50	-	-	4	5	7	60	77	
	55	-	-	5	6	7	66	85	
	60	-	-	6	6	7	73	93	
	65	-	3	4	6	8	80	102	
	70	-	3	5	6	8	87	110	

O₂ stop times do not include ascent time to 30 fsw

TABLE 2: IN-WATER OXYGEN DECOMPRESSION (FEET)

Depth (fsw)	Bottom Time (min)	Stop Times (min) at Different Depths (fsw)						Decom. Time (min)	Repet. Group
		Air					O ₂		
		80	70	60	50	40	30		
170	5	-	-	-	-	-	-	3	B
	10	-	-	-	-	-	7	10	E
	15	-	-	-	-	-	13	16	G
	20	-	-	-	-	5	21	27	H
	25	-	-	-	3	5	31	40	J
	30	-	-	-	6	5	39	51	K
	35	-	-	3	4	6	46	60	M
	40	-	-	4	5	6	52	68	
	45	-	-	6	5	6	59	77	
	50	-	3	4	5	7	66	86	
	55	-	3	5	5	8	73	95	
	60	-	4	5	6	8	81	105	
	65	-	5	5	6	8	89	114	
	70	-	5	5	7	12	96	126	
180	5	-	-	-	-	-	-	3	B
	10	-	-	-	-	-	9	12	E
	15	-	-	-	-	-	14	17	G
	20	-	-	-	-	7	25	33	H
	25	-	-	-	5	5	35	46	J
	30	-	-	3	5	5	42	56	M
	35	-	-	5	5	6	50	67	
	40	-	3	4	5	6	57	76	
	45	-	4	4	5	7	65	86	
	50	-	5	4	6	7	73	96	
	55	-	5	5	6	8	81	106	
	60	3	3	5	7	9	89	117	

O₂ stop times do not include ascent time to 30 fsw

AIR DIVING TABLES

TABLE 2: IN-WATER OXYGEN DECOMPRESSION (FEET)

Depth (fsw)	Bottom Time (min)	Stop Times (min) at Different Depths (fsw)								Decom. Time (min)
		Air							O ₂	
		100	90	80	70	60	50	40	30	
190	5	-	-	-	-	-	-	-	-	3
	10	-	-	-	-	-	-	-	10	14
	15	-	-	-	-	-	-	4	15	20
	20	-	-	-	-	-	4	5	29	39
	25	-	-	-	-	3	4	5	38	51
	30	-	-	-	-	5	5	5	46	62
	35	-	-	-	3	4	5	6	54	73
	40	-	-	-	5	4	5	7	62	84
	45	-	-	-	6	4	6	7	71	95
	50	-	-	-	4	4	6	8	80	106
	55	-	-	-	4	5	6	10	89	119
200	10	-	-	-	-	-	-	-	11	15
	15	-	-	-	-	-	-	6	18	25
	20	-	-	-	-	-	6	4	32	43
	25	-	-	-	-	5	4	5	41	56
	30	-	-	-	3	4	5	6	50	69
	35	-	-	-	5	4	5	7	58	80
	40	-	-	-	3	5	5	8	67	92
	45	-	-	-	4	4	6	8	77	104
	50	-	-	-	4	5	6	10	87	118
210	10	-	-	-	-	-	-	-	12	16
	15	-	-	-	-	-	-	7	22	30
	20	-	-	-	-	4	3	5	35	48
	25	-	-	-	-	6	5	5	45	62
	30	-	-	-	5	4	5	6	54	75
	35	-	-	3	4	4	5	7	63	87
	40	-	-	5	3	5	6	8	73	101
	45	-	-	6	4	4	7	8	84	114
	50	-	3	4	4	5	7	13	95	132
O ₂ stop times do not include ascent time to 30 fsw										

TABLE 2: IN-WATER OXYGEN DECOMPRESSION (FEET)

Depth (fsw)	Bottom Time (min)	Stop Times (min) at Different Depths (fsw)								Decom. Time (min)
		Air							O ₂	
		100	90	80	70	60	50	40	30	
220	10	-	-	-	-	-	-	-	13	17
	15	-	-	-	-	-	5	4	25	35
	20	-	-	-	-	5	4	5	38	53
	25	-	-	-	4	4	4	6	48	67
	30	-	-	3	4	4	5	7	58	82
	35	-	-	5	3	5	5	8	68	95
	40	-	3	3	4	5	6	8	80	110
	45	-	4	3	4	6	6	12	91	127
230	10	-	-	-	-	-	-	-	14	18
	15	-	-	-	-	-	6	4	28	39
	20	-	-	-	-	6	4	6	40	57
	25	-	-	-	6	4	4	7	51	73
	30	-	-	5	3	4	6	7	62	88
	35	-	4	3	3	5	6	8	74	104
	40	-	5	3	4	5	6	10	86	120
	45	-	-	-	-	-	-	-	-	-
240	5	-	-	-	-	-	-	-	5	9
	10	-	-	-	-	-	-	5	14	20
	15	-	-	-	-	-	7	5	30	43
	20	-	-	-	5	3	4	6	43	62
	25	-	-	4	3	4	5	7	55	79
	30	-	4	2	4	4	6	7	67	95
	35	-	5	3	4	5	6	8	80	112
	40	4	2	4	4	5	7	13	93	133

O₂ stop times do not include ascent time to 30 fsw

TABLE 2S

SHORT IN-WATER OXYGEN DECOMPRESSION (FEET)

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TABLE 2S: SHORT IN-WATER OXYGEN DECOMPRESSION (FEET)

Depth (fsw)	No-Decompression Bottom Times (min)			Decompression Required Bottom Times (min)			
50	30 C	50 E	75 G	115 J	125 J	140 K	160
60	20 B	30 D	50 F	75 H	85 I	95 J	110 K
70	15 B	25 D	35 F	45 F	65 H	72 I	82 J
80	10 A	20 D	25 E	30 F	50 H	57 H	64 I
90	9 A	15 C	20 D	25 E	40 G	46 H	52 I
100	7 A	10 B	15 D	20 E	33 G	39 H	43 I
110	6 A	10 B	12 C	17 D	28 G	34 H	37 H
120		6 A	10 C	14 D	23 G	30 H	32 H
130		5 A	8 B	13 D	20 G	26 G	29 H
140		5 A	7 B	11 D	17 F	24 G	26 H
150			6 B	10 D	15 F	21 G	23 H
160			6 B	9 D	14 F	19 G	21 H
170			5 B	8 C	12 E	18 G	19 H
180			5 B	7 C	11 E	16 G	18 G
Decompression Time (min) Oxygen at 30 fsw				5	10	15	20
Note: Decompression stop times do not include ascent time to 30 fsw.							

TABLE 3

SURFACE DECOMPRESSION

WITH OXYGEN (FEET)

The Department of National Defence (Canada), Defence and Civil Institute of Environmental Medicine (DCIEM), and Universal Dive Techtronics, Inc. (UDT) disclaim any and all responsibilities for the use of these tables and procedures.

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AIR DIVING TABLES

TABLE 3: SURFACE DECOMPRESSION WITH OXYGEN (FEET)

Depth (fsw)	Bottom Time (min)	Stop Times (min) at Different Depths (fsw)						Surface Interval	RCC O ₂ 40	Decom. Time (min)	Repet. Group
		In-Water Stops									
		Air									
		80	70	60	50	40	30				
60	50	-	-	-	-	-	-	Time from leaving the 30 fsw stop (or the bottom, if no in-water stop is required) to reaching the 40 fsw Chamber stop must not exceed 7 minutes.	-	1	F
	70	-	-	-	-	-	-		10	18	H
	80	-	-	-	-	-	-		16	24	H
	90	-	-	-	-	-	-		20	28	I
	100	-	-	-	-	-	-		24	32	J
	110	-	-	-	-	-	-		28	36	K
	120	-	-	-	-	-	-		30	38	K
	130	-	-	-	-	-	-		33*	46	
	140	-	-	-	-	-	-		38*	51	
	150	-	-	-	-	-	-		43*	56	
	160	-	-	-	-	-	-		47*	60	
	170	-	-	-	-	-	-		50*	63	
	180	-	-	-	-	-	-		54*	67	
	190	-	-	-	-	-	-		57*	70	
	200	-	-	-	-	-	-		60**	78	
	210	-	-	-	-	-	-		64**	82	
	220	-	-	-	-	-	-		70**	88	
	230	-	-	-	-	-	-		74**	92	
	240	-	-	-	-	-	-		77**	95	

Note: asterisk (*) indicates number of 5 minute air breaks required.

Note: asterisk (*) indicates number of 5 minute air breaks required.

TABLE 3: SURFACE DECOMPRESSION WITH OXYGEN (FEET)

Depth (fsw)	Bottom Time (min)	Stop Times (min) at Different Depths (fsw)						Surface Interval	RCC O ₂ 40	Decom. Time (min)	Repet. Group
		In-Water Stops									
		Air									
		80	70	60	50	40	30				
70	35	-	-	-	-	-	-	Time from leaving the 30 fsw stop (or the bottom, if no in-water stop is required) to reaching the 40 fsw Chamber stop must not exceed 7 minutes.	-	1	E
	50	-	-	-	-	-	-		6	14	H
	60	-	-	-	-	-	-		15	23	H
	70	-	-	-	-	-	-		21	29	I
	80	-	-	-	-	-	-		26	34	J
	90	-	-	-	-	-	-		30	38	K
	100	-	-	-	-	-	-		34*	47	K
	110	-	-	-	-	-	-		40*	53	
	120	-	-	-	-	-	-		46*	59	
	130	-	-	-	-	-	-		50*	63	
	140	-	-	-	-	-	-		55*	68	
	150	-	-	-	-	-	-		60*	73	
	160	-	-	-	-	-	-		64**	82	
	170	-	-	-	-	-	-		71**	89	
180	-	-	-	-	-	-	76**	94			
	190	-	-	-	-	-	1	81**	100		
	200	-	-	-	-	-	2	85**	105		

Note: asterisk (*) indicates number of 5 minute air breaks required.

AIR DIVING TABLES

TABLE 3: SURFACE DECOMPRESSION WITH OXYGEN (FEET)

Depth (fsw)	Bottom Time (min)	Stop Times (min) at Different Depths (fsw)						Surface Interval	RCC O ₂ 40	Decom. Time (min)	Repet. Group
		In-Water Stops									
		Air									
		80	70	60	50	40	30				
80	25	-	-	-	-	-	-	Time from leaving the 30 fsw stop (or the bottom, if no in-water stop is required) to reaching the 40 fsw Chamber stop must not exceed 7 minutes.	-	2	E
	45	-	-	-	-	-	-		12	20	H
	50	-	-	-	-	-	-		17	25	H
	55	-	-	-	-	-	-		21	29	H
	60	-	-	-	-	-	-		24	32	I
	70	-	-	-	-	-	-		30	38	J
	80	-	-	-	-	-	-		35*	48	K
	90	-	-	-	-	-	1		41*	55	
	100	-	-	-	-	-	2		47*	62	
	110	-	-	-	-	-	3		53*	69	
	120	-	-	-	-	-	3		59*	75	
	130	-	-	-	-	-	4		63**	85	
	140	-	-	-	-	-	5		72**	95	
	150	-	-	-	-	-	5	79**	102		
	160	-	-	-	-	-	6	84**	108		

Note: asterisk (*) indicates number of 5 minute air breaks required.

TABLE 3: SURFACE DECOMPRESSION WITH OXYGEN (FEET)

Depth (fsw)	Bottom Time (min)	Stop Times (min) at Different Depths (fsw)						Surface Interval	RCC O ₂ 40	Decom. Time (min)	Repet. Group
		In-Water Stops									
		Air									
		80	70	60	50	40	30				
90	20	-	-	-	-	-	-	Time from leaving the 30 fsw stop (or the bottom, if no in-water stop is required) to reaching the 40 fsw chamber stop must not exceed 7 minutes.	-	2	D
	35	-	-	-	-	-	-		8	16	G
	40	-	-	-	-	-	-		16	24	G
	45	-	-	-	-	-	-		21	29	H
	50	-	-	-	-	-	-		25	33	H
	55	-	-	-	-	-	1		28	37	I
	60	-	-	-	-	-	2		30*	45	J
	70	-	-	-	-	-	4		37*	54	
	80	-	-	-	-	-	5		45*	63	
	90	-	-	-	-	-	6		52*	71	
	100	-	-	-	-	-	7		58*	78	
	110	-	-	-	-	-	8		65**	91	
120	-	-	-	-	-	8	75**	101			
100	15	-	-	-	-	-	-	Time from leaving the 30 fsw stop (or the bottom, if no in-water stop is required) to reaching the 40 fsw chamber stop must not exceed 7 minutes.	-	2	D
	30	-	-	-	-	-	-		8	16	G
	35	-	-	-	-	-	-		17	25	G
	40	-	-	-	-	-	2		22	32	H
	45	-	-	-	-	-	3		27	38	I
	50	-	-	-	-	-	4		30	42	I
	55	-	-	-	-	-	5		31*	49	J
	60	-	-	-	-	-	6		37*	56	
	70	-	-	-	-	-	8		46*	67	
	80	-	-	-	-	-	9		54*	76	
	90	-	-	-	-	2	8		60*	83	
	100	-	-	-	-	3	9		72**	102	
	110	-	-	-	-	4	9		81**	112	

Note: asterisk (*) indicates number of 5 minute air breaks required.

Note: asterisk (*) indicates number of 5 minute air breaks required.

AIR DIVING TABLES

TABLE 3: SURFACE DECOMPRESSION WITH OXYGEN (FEET)

Depth (fsw)	Bottom Time (min)	Stop Times (min) at Different Depths (fsw)						Surface Interval	RCC O ₂ 40	Decom. Time (min)	Repet. Group
		In-Water Stops									
		Air									
		80	70	60	50	40	30				
110	12	-	-	-	-	-	-	-	2	C	
	25	-	-	-	-	-	-	7	15	G	
	30	-	-	-	-	-	2	16	26	G	
	35	-	-	-	-	-	4	22	34	H	
	40	-	-	-	-	-	5	27	40	I	
	45	-	-	-	-	-	6	30*	49	J	
	50	-	-	-	-	-	8	34*	55	K	
	55	-	-	-	-	-	9	40*	62	K	
	60	-	-	-	-	3	7	45*	68		
	65	-	-	-	-	3	8	50*	74		
	70	-	-	-	-	4	8	54*	79		
	75	-	-	-	-	5	8	59*	85		
	80	-	-	-	-	5	8	61**	92		
	85	-	-	-	-	6	8	70**	102		
	90	-	-	-	-	6	9	76**	109		
	95	-	-	-	-	7	9	81**	115		
	100	-	-	-	-	7	10	86**	121		
105	-	-	-	-	8	13	90**	129			
110	-	-	-	-	8	16	95***	142			

Note: asterisk (*) indicates number of 5 minute air breaks required.

TABLE 3: SURFACE DECOMPRESSION WITH OXYGEN (FEET)

Depth (fsw)	Bottom Time (min)	Stop Times (min) at Different Depths (fsw)						Surface Interval	RCC O ₂ 40	Decom. Time (min)	Repet. Group
		In-Water Stops									
		Air									
		80	70	60	50	40	30				
120	10	-	-	-	-	-	-	Time from leaving the 30 fsw stop (or the bottom, if no in-water stop is required) to reaching the 40 fsw Chamber stop must not exceed 7 minutes.	-	2	C
	20	-	-	-	-	-	-		7	15	F
	25	-	-	-	-	-	2		13	23	G
	30	-	-	-	-	-	5		21	34	G
	35	-	-	-	-	-	6		27	41	H
	40	-	-	-	-	-	8		30*	51	I
	45	-	-	-	-	3	7		36*	59	J
	50	-	-	-	-	4	7		42*	66	K
	55	-	-	-	-	5	7		48*	73	
	60	-	-	-	-	6	8		53*	80	
	65	-	-	-	-	7	8		58*	86	
	70	-	-	-	-	7	9		60**	94	
	75	-	-	-	2	6	9		70**	105	
	80	-	-	-	3	6	9		77**	113	
	85	-	-	-	3	7	10		83**	121	
90	-	-	-	3	7	14	87**	129			
95	-	-	-	4	7	16	90**	135			
100	-	-	-	4	7	20	100***	154			
Note: asterisk (*) indicates number of 5 minute air breaks required.											

AIR DIVING TABLES

TABLE 3: SURFACE DECOMPRESSION WITH OXYGEN (FEET)

Depth (fsw)	Bottom Time (min)	Stop Times (min) at Different Depths (fsw)						Surface Interval	RCC O ₂ 40	Decom. Time (min)	Repet. Group
		In-Water Stops									
		Air									
		80	70	60	50	40	30				
130	8	-	-	-	-	-	-	Time from leaving the 30 fsw stop (or the bottom, if no in-water stop is required) to reaching the 40 fsw Chamber stop must not exceed 7 minutes.	-	2	B
	20	-	-	-	-	-	-		9	17	G
	25	-	-	-	-	-	5		18	31	G
	30	-	-	-	-	-	7		26	41	H
	35	-	-	-	-	3	6		30*	52	I
	40	-	-	-	-	5	6		36*	60	J
	45	-	-	-	-	6	7		43*	69	K
	50	-	-	-	-	7	8		49*	77	
	55	-	-	-	2	6	8		55*	84	
	60	-	-	-	3	6	8		60**	95	
	65	-	-	-	4	6	9		68**	105	
	70	-	-	-	5	6	9		76**	114	
	75	-	-	-	5	7	11		82**	123	
	80	-	-	-	6	7	15		87**	133	
	85	-	-	-	6	7	18		90***	144	
90	-	-	-	7	7	22	102***	161			
Note: asterisk (*) indicates number of 5 minute air breaks required.											

TABLE 3: SURFACE DECOMPRESSION WITH OXYGEN (FEET)

Depth (fsw)	Bottom Time (min)	Stop Times (min) at Different Depths (fsw)							Surface Interval	RCC O ₂ 40	Decom. Time (min)	Repet. Group
		In-Water Stops										
		Air										
		80	70	60	50	40	30					
140	7	-	-	-	-	-	-	Time from leaving the 30 fsw stop (or the bottom, if no in-water stop is required) to reaching the 40 fsw Chamber stop must not exceed 7 minutes.	-	3	B	
	15	-	-	-	-	-	-		7	15	F	
	20	-	-	-	-	-	4		12	24	G	
	25	-	-	-	-	-	7		23	38	H	
	30	-	-	-	-	4	6		30	48	I	
	35	-	-	-	-	6	6		34*	59	J	
	40	-	-	-	-	7	7		42*	69	K	
	45	-	-	-	3	6	7		49*	78	M	
	50	-	-	-	4	6	8		56*	87		
	55	-	-	-	5	6	9		60**	98		
	60	-	-	-	6	6	9		71**	110		
	65	-	-	-	7	6	11		79**	121		
	70	-	-	2	5	7	15		85**	132		
	75	-	-	3	5	8	18		90**	142		
80	-	-	3	6	8	21	101***	162				
85	-	-	4	6	8	25	108***	174				
90	-	-	4	6	8	30	113***	184				

Note: asterisk (*) indicates number of 5 minute air breaks required.

AIR DIVING TABLES

TABLE 3: SURFACE DECOMPRESSION WITH OXYGEN (FEET)

Depth (fsw)	Bottom Time (min)	Stop Times (min) at Different Depths (fsw)						Surface Interval	RCC O ₂ 40	Decom. Time (min)	Repet. Group
		In-Water Stops									
		Air									
		80	70	60	50	40	30				
150	6	-	-	-	-	-	-	Time from leaving the 30 fsw stop (or the bottom, if no in-water stop is required) to reaching the 40 fsw Chamber stop must not exceed 7 minutes.	-	3	B
	15	-	-	-	-	-	-		8	16	G
	20	-	-	-	-	-	6		17	31	G
	25	-	-	-	-	4	6		26	44	H
	30	-	-	-	-	6	7		30*	56	I
	35	-	-	-	3	5	7		40*	68	K
	40	-	-	-	4	6	8		48*	79	M
	45	-	-	-	6	6	8		55*	88	
	50	-	-	-	7	6	9		60**	100	
	55	-	-	3	5	6	10		73**	115	
	60	-	-	4	5	7	13		81**	128	
	65	-	-	4	6	7	17		87**	139	
	70	-	-	5	6	7	21		97***	159	
	75	-	-	6	5	8	25		106***	173	
	80	-	-	6	6	8	29		112***	184	
160	6	-	-	-	-	-	-	Time from leaving the 30 fsw stop (or the bottom, if no in-water stop is required) to reaching the 40 fsw Chamber stop must not exceed 7 minutes.	-	3	B
	15	-	-	-	-	-	4		7	19	G
	20	-	-	-	-	3	5		21	37	G
	25	-	-	-	-	6	6		30	50	I
	30	-	-	-	4	5	6		37*	65	J
	35	-	-	-	5	6	7		46*	77	L
	40	-	-	-	7	6	8		54*	88	
	45	-	-	3	5	6	9		60*	96	
	50	-	-	4	5	7	9		73**	116	
	55	-	-	5	6	7	14		81**	131	
	60	-	-	6	6	7	18		89**	144	
	65	-	3	4	6	8	22		101***	167	
	70	-	3	5	6	8	27		109***	181	

Note: asterisk (*) indicates number of 5 minute air breaks required.

Note: asterisk (*) indicates number of 5 minute air breaks required.

TABLE 3: SURFACE DECOMPRESSION WITH OXYGEN (FEET)

Depth (fsw)	Bottom Time (min)	Stop Times (min) at Different Depths (fsw)						Surface Interval	RCC O ₂ 40	Decom. Time (min)	Repet. Group
		In-Water Stops									
		Air									
		80	70	60	50	40	30				
170	5	-	-	-	-	-	-	Time from leaving the 30 fsw stop (or the bottom, if no in-water stop is required) to reaching the 40 fsw chamber stop must not exceed 7 minutes.	-	3	B
	10	-	-	-	-	-	-		6	14	D
	15	-	-	-	-	-	6		11	25	G
	20	-	-	-	-	5	6		25	44	H
	25	-	-	-	3	5	6		30*	57	J
	30	-	-	-	6	5	7		42*	73	K
	35	-	-	3	4	6	8		51*	85	M
	40	-	-	4	5	6	9		60*	97	
	45	-	-	6	5	6	10		71**	116	
	50	-	3	4	5	7	14		81**	132	
	55	-	3	5	5	8	19		89**	147	
	60	-	4	5	6	8	23		102***	171	
	65	-	5	5	6	8	29		111***	187	
70	-	5	5	7	12	31	118***	201			
180	5	-	-	-	-	-	-	Time from leaving the 30 fsw stop (or the bottom, if no in-water stop is required) to reaching the 40 fsw chamber stop must not exceed 7 minutes.	-	3	B
	10	-	-	-	-	-	-		7	15	E
	15	-	-	-	-	-	8		15	31	G
	20	-	-	-	-	7	6		28	49	H
	25	-	-	-	5	5	7		36*	66	J
	30	-	-	3	5	5	8		47*	81	M
	35	-	-	5	5	6	8		57*	94	
	40	-	3	4	5	6	9		68**	113	
	45	-	4	4	5	7	14		79**	131	
	50	-	5	4	6	7	19		88**	147	
	55	-	5	5	6	8	24		102***	173	
	60	3	3	5	7	9	29		111***	190	

Note: asterisk (*) indicates number of 5 minute air breaks required.

Note: asterisk (*) indicates number of 5 minute air breaks required.

AIR DIVING TABLES

TABLE 3: SURFACE DECOMPRESSION WITH OXYGEN (FEET)

Depth (fsw)	Bottom Time (min)	Stop Times (min) at Different Depths (fsw)										Surface Interval	RCC O ₂	Decom. Time (min)
		In-Water Stops								Air				
		100	90	80	70	60	50	40	30					
190	5	-	-	-	-	-	-	-	-	-	-	-	3	
	10	-	-	-	-	-	-	-	-	-	-	8	16	
	15	-	-	-	-	-	-	-	4	5	-	19	36	
	20	-	-	-	-	-	4	5	6	-	30	53		
	25	-	-	-	-	3	4	5	7	-	41*	73		
	30	-	-	-	-	5	5	5	8	-	52*	88		
	35	-	-	-	3	4	5	6	9	-	60*	100		
	40	-	-	-	5	4	5	7	12	-	76**	127		
	45	-	-	-	6	4	6	7	18	-	86**	145		
	50	-	-	3	4	4	6	8	24	-	100***	172		
	55	-	-	4	4	5	6	10	28	-	111***	191		
200	10	-	-	-	-	-	-	-	-	-	10	18		
	15	-	-	-	-	-	-	-	6	5	22	41		
	20	-	-	-	-	-	6	4	7	-	31*	61		
	25	-	-	-	-	5	4	5	8	-	45*	80		
	30	-	-	-	3	4	5	6	8	-	57*	96		
	35	-	-	-	5	4	5	7	9	-	70**	118		
	40	-	-	3	3	5	5	8	16	-	83**	141		
	45	-	-	4	4	4	6	8	22	-	95***	166		
	50	-	-	5	4	5	6	10	27	-	109***	189		
210	10	-	-	-	-	-	-	-	5	-	7	20		
	15	-	-	-	-	-	-	-	7	6	25	46		
	20	-	-	-	-	4	3	5	7	-	36*	68		
	25	-	-	-	-	6	5	5	8	-	50*	87		
	30	-	-	-	5	4	5	6	9	-	60*	102		
	35	-	-	3	4	4	5	7	14	-	77**	132		
	40	-	-	5	3	5	6	8	19	-	90**	154		
	45	-	-	6	4	4	7	8	27	-	106***	185		
	50	-	3	4	4	5	7	13	31	-	117***	207		

Note: asterisk (*) indicates number of 5 minute air breaks required.

Note: asterisk (*) indicates number of 5 minute air breaks required.

TABLE 3: SURFACE DECOMPRESSION WITH OXYGEN (FEET)

Depth (fsw)	Bottom Time (min)	Stop Times (min) at Different Depths (fsw)										Surface Interval	RCC O ₂ 40	Decom. Time (min)
		In-Water Stops												
		Air												
		100	90	80	70	60	50	40	30					
220	10	-	-	-	-	-	-	-	7	Time from leaving the 30 fsw stop to reaching the 40 fsw Chamber stop must not exceed 7 minutes.	7	22		
	15	-	-	-	-	-	5	4	6		28	51		
	20	-	-	-	-	5	4	5	7		40*	74		
	25	-	-	-	4	4	4	6	9		54*	94		
	30	-	-	3	4	4	5	7	9		69**	119		
	35	-	-	5	3	5	5	8	17		83**	144		
	40	-	3	3	4	5	6	8	24		100***	176		
	45	-	4	3	4	6	6	12	29		113***	200		
230	10	-	-	-	-	-	-	-	8		11	27		
	15	-	-	-	-	-	6	4	7		30	55		
	20	-	-	-	-	6	4	6	7		44*	80		
	25	-	-	-	6	4	4	7	8		59*	101		
	30	-	-	5	3	4	6	7	12		76**	131		
	35	-	4	3	3	5	6	8	20		90**	157		
	40	-	5	3	4	5	6	10	27		108***	191		
240	10	-	-	-	-	-	-	5	5		15	33		
	15	-	-	-	-	-	7	5	6		30*	61		
	20	-	-	-	5	3	4	6	8		48*	87		
	25	-	-	4	3	4	5	7	9		60**	110		
	30	-	4	2	4	4	6	7	16		82**	143		
	35	-	5	3	4	5	6	8	24		100***	178		
	40	4	2	4	4	5	7	13	30		115***	207		

Note: asterisk (*) indicates number of 5 minute air breaks required.

TABLE 4

REPETITIVE DIVING (FEET)

A. REPETITIVE FACTORS/SURFACE INTERVALS TABLE

B. NO-DECOMPRESSION REPETITIVE DIVING TABLE

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TABLE 4: REPETITIVE DIVING (FEET)

A. REPETITIVE FACTORS/SURFACE INTERVALS TABLE											
Repet. Group (RG)	Repetitive Factors (RF) for Surface Intervals (SI) in hr:min										
	0:15 → 0:29	0:30 → 0:59	1:00 → 1:29	1:30 → 1:59	2:00 → 2:59	3:00 → 3:59	4:00 → 5:59	6:00 → 8:59	9:00 → 11:59	12:00 → 14:59	15:00 → 18:00
A	1.4	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.0	1.0	1.0
B	1.5	1.3	1.2	1.2	1.2	1.1	1.1	1.1	1.1	1.0	1.0
C	1.6	1.4	1.3	1.2	1.2	1.2	1.1	1.1	1.1	1.0	1.0
D	1.8	1.5	1.4	1.3	1.3	1.2	1.2	1.1	1.1	1.0	1.0
E	1.9	1.6	1.5	1.4	1.3	1.3	1.2	1.2	1.1	1.1	1.0
F	2.0	1.7	1.6	1.5	1.4	1.3	1.3	1.2	1.1	1.1	1.0
G	-	1.9	1.7	1.6	1.5	1.4	1.3	1.2	1.1	1.1	1.0
H	-	-	1.9	1.7	1.6	1.5	1.4	1.3	1.1	1.1	1.1
I	-	-	2.0	1.8	1.7	1.5	1.4	1.3	1.1	1.1	1.1
J	-	-	-	1.9	1.8	1.6	1.5	1.3	1.2	1.1	1.1
K	-	-	-	2.0	1.9	1.7	1.5	1.3	1.2	1.1	1.1
L	-	-	-	-	2.0	1.7	1.6	1.4	1.2	1.1	1.1
M	-	-	-	-	-	1.8	1.6	1.4	1.2	1.1	1.1
N	-	-	-	-	-	1.9	1.7	1.4	1.2	1.1	1.1
O	-	-	-	-	-	2.0	1.7	1.4	1.2	1.1	1.1

B. NO-DECOMPRESSION REPETITIVE DIVING TABLE											
Depth (fsw)	Allowable No-D Limits (min) for Repetitive Factors (RF)										
	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	
30	272	250	230	214	200	187	176	166	157	150	
40	136	125	115	107	100	93	88	83	78	75	
50	60	55	50	45	41	38	36	34	32	31	
60	40	35	31	29	27	26	24	23	22	21	
70	30	25	21	19	18	17	16	15	14	13	
80	20	18	16	15	14	13	12	12	11	11	
90	16	14	12	11	11	10	9	9	8	8	
100	13	11	10	9	9	8	8	7	7	7	
110	10	9	8	8	7	7	6	6	6	6	
120	8	7	7	6	6	6	5	5	5	5	
130	7	6	6	5	5	5	4	4	4	4	
140	6	5	5	5	4	4	4	3	3	3	
150	5	5	4	4	4	3	3	3	3	3	

DCIEM DIVING MANUAL

TABLE 5

DEPTH CORRECTIONS FOR DIVING AT ALTITUDE (FEET)

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AIR DIVING TABLES

TABLE 5: DEPTH CORRECTIONS - DIVING AT ALTITUDE (FEET)

Actual Depth (feet)	Depth Correction at Altitude (feet)								
	300 → 999	1000 → 1999	2000 → 2999	3000 → 3999	4000 → 4999	5000 → 5999	6000 → 6999	7000 → 7999	8000 → 10000
30	+0	+10	+10	+10	+10	+10	+10	+20	+20
40	+0	+10	+10	+10	+10	+10	+20	+20	+20
50	+0	+10	+10	+10	+10	+20	+20	+20	+20
60	+0	+10	+10	+10	+20	+20	+20	+20	+30
70	+0	+10	+10	+10	+20	+20	+20	+30	+30
80	+0	+10	+10	+20	+20	+20	+30	+30	+40
90	+0	+10	+10	+20	+20	+20	+30	+30	+40
100	+0	+10	+10	+20	+20	+30	+30	+30	+40
110	+0	+10	+20	+20	+20	+30	+30	+40	+50
120	+0	+10	+20	+20	+30	+30	+30	+40	+50
130	+0	+10	+20	+20	+30	+30	+40	+40	+50
140	+0	+10	+20	+20	+30	+30	+40	+40	+60
150	+10	+10	+20	+20	+30	+40	+40	+50	+60
160	+10	+20	+20	+30	+30	+40	+40	+50	+60
170	+10	+20	+20	+30	+30	+40	+50	+50	+70
180	+10	+20	+20	+30	+40	+40	+50	+50	
190	+10	+20	+20	+30	+40	+40	+50		
200	+10	+20	+20	+30	+40	+40			
210	+10	+20	+20	+30					
220	+10	+20							
230	+10								
Sea Level Stop Depth (feet)	Actual Decompression Stop Depth at Altitude (feet)								
	300 → 999	1000 → 1999	2000 → 2999	3000 → 3999	4000 → 4999	5000 → 5999	6000 → 6999	7000 → 7999	8000 → 10000
10	10	10	10	9	9	9	8	8	8
20	20	20	19	18	18	17	16	16	15
30	30	29	28	27	26	25	24	24	23
40	40	39	38	36	35	34	32	31	30
50	50	49	47	45	44	42	40	39	38
60	59	58	56	54	52	50	48	47	45
70	69	68	66	63	61	59	56	54	52
80	79	77	75	72	70	67	64	62	60
90	89	87	84	81	78	75	72	70	67

DCIEM DIVING MANUAL

APPENDIX B

DCIEM AIR DIVING TABLES

(METRES)

DCIEM DIVING MANUAL

TABLE 1

STANDARD AIR DECOMPRESSION

(METRES)

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DCIEM DIVING MANUAL

AIR DIVING TABLES

TABLE 1: STANDARD AIR DECOMPRESSION (METRES)

Depth (msw)	Bottom Time (min)	Stop Times (min) at Different Depths (msw)								Decom. Time (min)	Repet. Group
		24	21	18	15	12	9	6	3		
6	30	-	-	-	-	-	-	-	-	1	A
	60	-	-	-	-	-	-	-	-	1	B
	90	-	-	-	-	-	-	-	-	1	C
	120	-	-	-	-	-	-	-	-	1	D
	150	-	-	-	-	-	-	-	-	1	E
	180	-	-	-	-	-	-	-	-	1	F
	240	-	-	-	-	-	-	-	-	1	G
	300	-	-	-	-	-	-	-	-	1	H
	360	-	-	-	-	-	-	-	-	1	I
	420	-	-	-	-	-	-	-	-	1	J
	480	-	-	-	-	-	-	-	-	1	K
	600	-	-	-	-	-	-	-	-	1	L
	720	-	-	-	-	-	-	-	-	1	M
9	30	-	-	-	-	-	-	-	-	1	A
	60	-	-	-	-	-	-	-	-	1	C
	90	-	-	-	-	-	-	-	-	1	D
	120	-	-	-	-	-	-	-	-	1	F
	150	-	-	-	-	-	-	-	-	1	G
	180	-	-	-	-	-	-	-	-	1	H
	210	-	-	-	-	-	-	-	-	1	J
	240	-	-	-	-	-	-	-	-	1	K
	270	-	-	-	-	-	-	-	-	1	L
	300	-	-	-	-	-	-	-	-	1	M
	330	-	-	-	-	-	-	-	3	3	N
	360	-	-	-	-	-	-	-	5	5	O
	400	-	-	-	-	-	-	-	7	7	
	420	-	-	-	-	-	-	-	10	10	
	450	-	-	-	-	-	-	-	15	15	
	480	-	-	-	-	-	-	-	20	20	

TABLE 1: STANDARD AIR DECOMPRESSION (METRES)

Depth (msw)	Bottom Time (min)	Stop Times (min) at Different Depths (msw)								Decom. Time (min)	Repet. Group
		24	21	18	15	12	9	6	3		
12	20	-	-	-	-	-	-	-	-	1	A
	30	-	-	-	-	-	-	-	-	1	B
	60	-	-	-	-	-	-	-	-	1	D
	90	-	-	-	-	-	-	-	-	1	G
	120	-	-	-	-	-	-	-	-	1	H
	150	-	-	-	-	-	-	-	-	1	J
	180	-	-	-	-	-	-	-	5	5	M
	200	-	-	-	-	-	-	-	10	10	
	210	-	-	-	-	-	-	-	15	15	
	220	-	-	-	-	-	-	-	19	19	
	240	-	-	-	-	-	-	-	26	26	
	270	-	-	-	-	-	-	-	35	35	
	300	-	-	-	-	-	-	-	44	44	
	330	-	-	-	-	-	-	-	53	53	
	360	-	-	-	-	-	-	-	62	62	
15	10	-	-	-	-	-	-	-	-	1	A
	20	-	-	-	-	-	-	-	-	1	B
	30	-	-	-	-	-	-	-	-	1	C
	40	-	-	-	-	-	-	-	-	1	D
	50	-	-	-	-	-	-	-	-	1	E
	60	-	-	-	-	-	-	-	-	1	F
	75	-	-	-	-	-	-	-	-	1	G
	100	-	-	-	-	-	-	-	5	5	I
	120	-	-	-	-	-	-	-	10	10	K
	125	-	-	-	-	-	-	-	13	13	K
	130	-	-	-	-	-	-	-	16	16	L
	140	-	-	-	-	-	-	-	21	21	M
	150	-	-	-	-	-	-	-	26	26	
	160	-	-	-	-	-	-	-	31	31	
	170	-	-	-	-	-	-	-	35	35	
	180	-	-	-	-	-	-	-	40	40	
	200	-	-	-	-	-	-	-	50	50	
	220	-	-	-	-	-	-	-	59	59	
	240	-	-	-	-	-	-	-	70	70	
	260	-	-	-	-	-	-	-	81	81	
	280	-	-	-	-	-	-	-	91	91	

AIR DIVING TABLES

TABLE 1: STANDARD AIR DECOMPRESSION (METRES)

Depth (msw)	Bottom Time (min)	Stop Times (min) at Different Depths (msw)								Decom. Time (min)	Repet. Group
		24	21	18	15	12	9	6	3		
18	10	-	-	-	-	-	-	-	-	1	A
	20	-	-	-	-	-	-	-	-	1	B
	30	-	-	-	-	-	-	-	-	1	D
	40	-	-	-	-	-	-	-	-	1	E
	50	-	-	-	-	-	-	-	-	1	F
	60	-	-	-	-	-	-	-	5	5	G
	80	-	-	-	-	-	-	-	10	10	I
	90	-	-	-	-	-	-	-	16	16	J
	100	-	-	-	-	-	-	-	24	24	K
	110	-	-	-	-	-	-	-	30	30	L
	120	-	-	-	-	-	-	-	36	36	M
	130	-	-	-	-	-	-	2	40	42	
	140	-	-	-	-	-	-	2	46	48	
	150	-	-	-	-	-	-	3	52	55	
	160	-	-	-	-	-	-	3	59	62	
	170	-	-	-	-	-	-	4	65	69	
	180	-	-	-	-	-	-	4	73	77	
	190	-	-	-	-	-	-	5	80	85	
	200	-	-	-	-	-	-	7	87	94	
	210	-	-	-	-	-	-	13	91	104	
	220	-	-	-	-	-	-	17	97	114	
	230	-	-	-	-	-	-	21	103	124	
	240	-	-	-	-	-	-	24	109	133	

TABLE 1: STANDARD AIR DECOMPRESSION (METRES)

Depth (msw)	Bottom Time (min)	Stop Times (min) at Different Depths (msw)								Decom. Time (min)	Repet. Group
		24	21	18	15	12	9	6	3		
21	10	-	-	-	-	-	-	-	-	1	A
	20	-	-	-	-	-	-	-	-	1	C
	25	-	-	-	-	-	-	-	-	1	D
	30	-	-	-	-	-	-	-	-	1	D
	35	-	-	-	-	-	-	-	-	1	E
	40	-	-	-	-	-	-	-	5	5	F
	50	-	-	-	-	-	-	-	10	10	G
	60	-	-	-	-	-	-	-	12	12	H
	70	-	-	-	-	-	-	3	17	20	J
	80	-	-	-	-	-	-	4	25	29	K
	90	-	-	-	-	-	-	5	32	37	M
	100	-	-	-	-	-	-	6	39	45	N
	110	-	-	-	-	-	-	7	46	53	
	120	-	-	-	-	-	-	7	54	61	
	130	-	-	-	-	-	-	8	62	70	
	140	-	-	-	-	-	-	9	71	80	
	150	-	-	-	-	-	-	15	77	92	
	160	-	-	-	-	-	-	20	85	105	
	170	-	-	-	-	-	-	25	93	118	
	180	-	-	-	-	-	-	29	101	130	
	190	-	-	-	-	-	-	34	109	143	
	200	-	-	-	-	-	-	38	117	155	

AIR DIVING TABLES

TABLE 1: STANDARD AIR DECOMPRESSION (METRES)

Depth (msw)	Bottom Time (min)	Stop Times (min) at Different Depths (msw)								Decom. Time (min)	Repet. Group
		24	21	18	15	12	9	6	3		
24	10	-	-	-	-	-	-	-	-	2	A
	15	-	-	-	-	-	-	-	-	2	C
	20	-	-	-	-	-	-	-	-	2	D
	25	-	-	-	-	-	-	-	-	2	E
	30	-	-	-	-	-	-	-	5	5	F
	40	-	-	-	-	-	-	-	11	11	G
	50	-	-	-	-	-	-	4	11	15	H
	55	-	-	-	-	-	-	5	15	20	I
	60	-	-	-	-	-	-	6	21	27	J
	65	-	-	-	-	-	-	7	25	32	J
	70	-	-	-	-	-	-	7	30	37	K
	75	-	-	-	-	-	-	8	34	42	L
	80	-	-	-	-	-	-	9	37	46	M
	85	-	-	-	-	-	-	9	42	51	
	90	-	-	-	-	-	-	10	46	56	
	95	-	-	-	-	-	-	11	50	61	
	100	-	-	-	-	-	-	11	55	66	
	110	-	-	-	-	-	2	12	64	78	
	120	-	-	-	-	-	3	18	72	93	
	130	-	-	-	-	-	4	23	82	109	
	140	-	-	-	-	-	4	28	93	125	
	150	-	-	-	-	-	5	33	104	142	
	160	-	-	-	-	-	5	39	114	158	

DCIEM DIVING MANUAL

TABLE 1: STANDARD AIR DECOMPRESSION (METRES)

Depth (msw)	Bottom Time (min)	Stop Times (min) at Different Depths (msw)								Decom. Time (min)	Repet. Group
		24	21	18	15	12	9	6	3		
27	5	-	-	-	-	-	-	-	-	2	A
	10	-	-	-	-	-	-	-	-	2	B
	15	-	-	-	-	-	-	-	-	2	C
	20	-	-	-	-	-	-	-	-	2	D
	25	-	-	-	-	-	-	-	7	7	E
	30	-	-	-	-	-	-	2	9	11	F
	40	-	-	-	-	-	-	6	10	16	H
	45	-	-	-	-	-	-	7	14	21	I
	50	-	-	-	-	-	-	8	20	28	J
	55	-	-	-	-	-	-	9	26	35	K
	60	-	-	-	-	-	2	8	31	41	L
	65	-	-	-	-	-	3	8	36	47	
	70	-	-	-	-	-	3	9	40	52	
	75	-	-	-	-	-	4	9	46	59	
	80	-	-	-	-	-	4	10	51	65	
	85	-	-	-	-	-	5	10	56	71	
	90	-	-	-	-	-	5	14	60	79	
	95	-	-	-	-	-	6	17	64	87	
	100	-	-	-	-	-	6	20	70	96	
	110	-	-	-	-	-	7	26	82	115	
	120	-	-	-	-	-	8	31	95	134	

AIR DIVING TABLES

TABLE 1: STANDARD AIR DECOMPRESSION (METRES)

Depth (msw)	Bottom Time (min)	Stop Times (min) at Different Depths (msw)								Decom. Time (min)	Repet. Group
		24	21	18	15	12	9	6	3		
30	5	-	-	-	-	-	-	-	-	2	A
	10	-	-	-	-	-	-	-	-	2	B
	15	-	-	-	-	-	-	-	-	2	D
	20	-	-	-	-	-	-	-	8	8	E
	25	-	-	-	-	-	-	3	9	12	F
	30	-	-	-	-	-	-	5	10	15	G
	35	-	-	-	-	-	-	7	11	18	H
	40	-	-	-	-	-	-	9	16	25	I
	45	-	-	-	-	-	3	8	23	34	J
	50	-	-	-	-	-	4	8	29	41	K
	55	-	-	-	-	-	5	9	34	48	L
	60	-	-	-	-	-	6	9	40	55	
	65	-	-	-	-	-	6	10	46	62	
	70	-	-	-	-	-	7	10	52	69	
	75	-	-	-	-	-	8	14	56	78	
	80	-	-	-	-	-	8	18	61	87	
	85	-	-	-	-	-	9	21	67	97	
	90	-	-	-	-	2	8	24	75	109	
	95	-	-	-	-	3	8	27	82	120	
	100	-	-	-	-	3	8	31	90	132	
	105	-	-	-	-	3	9	34	98	144	
	110	-	-	-	-	4	8	38	106	156	

TABLE 1: STANDARD AIR DECOMPRESSION (METRES)

Depth (msw)	Bottom Time (min)	Stop Times (min) at Different Depths (msw)								Decom. Time (min)	Repet. Group
		24	21	18	15	12	9	6	3		
33	5	-	-	-	-	-	-	-	-	2	A
	10	-	-	-	-	-	-	-	-	2	B
	12	-	-	-	-	-	-	-	-	2	C
	15	-	-	-	-	-	-	-	5	5	D
	20	-	-	-	-	-	-	3	9	12	F
	25	-	-	-	-	-	-	6	10	16	G
	30	-	-	-	-	-	-	9	10	19	H
	35	-	-	-	-	-	3	8	16	27	I
	40	-	-	-	-	-	5	8	24	37	J
	45	-	-	-	-	-	6	9	31	46	K
	50	-	-	-	-	-	7	9	38	54	M
	55	-	-	-	-	-	8	10	44	62	N
	60	-	-	-	-	2	7	10	51	70	
	65	-	-	-	-	3	7	15	55	80	
	70	-	-	-	-	4	7	19	62	92	
	75	-	-	-	-	4	8	23	68	103	
	80	-	-	-	-	5	8	26	77	116	
	85	-	-	-	-	5	9	30	86	130	
	90	-	-	-	-	6	9	34	95	144	
	95	-	-	-	-	6	9	38	105	158	
	100	-	-	-	-	7	9	42	114	172	
	105	-	-	-	-	7	12	45	123	187	
	110	-	-	-	-	8	15	48	130	201	

AIR DIVING TABLES

TABLE 1: STANDARD AIR DECOMPRESSION (METRES)

Depth (msw)	Bottom Time (min)	Stop Times (min) at Different Depths (msw)								Decom. Time (min)	Repet. Group
		24	21	18	15	12	9	6	3		
36	5	-	-	-	-	-	-	-	-	2	A
	10	-	-	-	-	-	-	-	-	2	C
	15	-	-	-	-	-	-	-	10	10	E
	20	-	-	-	-	-	-	5	10	15	F
	25	-	-	-	-	-	-	9	10	19	G
	30	-	-	-	-	-	4	8	14	26	I
	35	-	-	-	-	-	6	8	24	38	J
	40	-	-	-	-	-	8	8	32	48	K
	45	-	-	-	-	3	6	10	38	57	M
	50	-	-	-	-	4	7	10	46	67	N
	55	-	-	-	-	5	7	13	53	78	
	60	-	-	-	-	6	7	18	59	90	
	65	-	-	-	-	6	8	22	66	102	
	70	-	-	-	-	7	8	27	75	117	
	75	-	-	-	-	8	8	31	86	133	
	80	-	-	-	2	6	9	35	97	149	
	85	-	-	-	3	6	10	40	107	166	
	90	-	-	-	3	7	13	42	118	183	
	95	-	-	-	4	6	16	46	128	200	
	100	-	-	-	4	7	19	50	136	216	

TABLE 1: STANDARD AIR DECOMPRESSION (METRES)

Depth (msw)	Bottom Time (min)	Stop Times (min) at Different Depths (msw)								Decom. Time (min)	Repet. Group
		24	21	18	15	12	9	6	3		
39	5	-	-	-	-	-	-	-	-	2	A
	8	-	-	-	-	-	-	-	-	2	B
	10	-	-	-	-	-	-	-	5	5	C
	15	-	-	-	-	-	-	4	8	12	E
	20	-	-	-	-	-	-	8	10	18	G
	25	-	-	-	-	-	5	7	11	23	H
	30	-	-	-	-	-	7	8	22	37	J
	35	-	-	-	-	3	6	9	30	48	K
	40	-	-	-	-	4	7	9	39	59	M
	45	-	-	-	-	6	7	10	47	70	N
	50	-	-	-	-	7	7	15	53	82	
	55	-	-	-	2	6	8	20	61	97	
	60	-	-	-	3	6	8	25	70	112	
	65	-	-	-	4	6	8	30	82	130	
	70	-	-	-	4	7	9	34	94	148	
	75	-	-	-	5	6	11	39	106	167	
	80	-	-	-	5	7	14	42	118	186	
	85	-	-	-	6	7	17	47	129	206	
	90	-	-	-	6	8	20	52	138	224	
42	7	-	-	-	-	-	-	-	-	2	B
	10	-	-	-	-	-	-	-	7	7	D
	15	-	-	-	-	-	-	6	9	15	F
	20	-	-	-	-	-	4	7	10	21	G
	25	-	-	-	-	-	7	8	17	32	I
	30	-	-	-	-	4	6	8	28	46	K
	35	-	-	-	-	5	7	9	37	58	L
	40	-	-	-	-	7	7	10	46	70	N
	45	-	-	-	3	5	8	16	53	85	O
	50	-	-	-	4	6	8	21	62	101	
	55	-	-	-	5	6	8	27	73	119	
	60	-	-	-	6	6	9	32	86	139	
	65	-	-	-	6	7	10	37	99	159	
	70	-	-	-	7	7	14	40	114	182	
	75	-	-	3	5	7	18	45	126	204	
	80	-	-	3	6	7	21	51	137	225	
	85	-	-	4	5	8	25	57	146	245	
	90	-	-	4	6	8	28	65	152	263	

AIR DIVING TABLES

TABLE 1: STANDARD AIR DECOMPRESSION (METRES)

Depth (msw)	Bottom Time (min)	Stop Times (min) at Different Depths (msw)								Decom. Time (min)	Repet. Group
		24	21	18	15	12	9	6	3		
45	7	-	-	-	-	-	-	-	-	3	B
	10	-	-	-	-	-	-	-	9	9	D
	15	-	-	-	-	-	-	8	9	17	F
	20	-	-	-	-	-	6	7	11	24	H
	25	-	-	-	-	4	5	8	23	40	J
	30	-	-	-	-	6	6	9	34	55	K
	35	-	-	-	3	5	7	10	44	69	M
	40	-	-	-	4	6	7	15	52	84	O
	45	-	-	-	5	6	8	21	61	101	
	50	-	-	-	6	7	8	27	73	121	
	55	-	-	3	5	6	9	33	88	144	
	60	-	-	3	5	7	12	38	103	168	
	65	-	-	4	5	8	16	42	119	194	
	70	-	-	5	5	8	20	48	132	218	
	75	-	-	5	6	8	24	55	142	240	
	80	-	-	6	6	8	28	63	150	261	
48	6	-	-	-	-	-	-	-	-	3	B
	10	-	-	-	-	-	-	-	11	11	D
	15	-	-	-	-	-	4	6	10	20	G
	20	-	-	-	-	-	8	8	14	30	H
	25	-	-	-	-	6	6	8	29	49	K
	30	-	-	-	3	5	7	9	40	64	M
	35	-	-	-	5	5	8	13	49	80	N
	40	-	-	-	6	6	8	20	59	99	
	45	-	-	3	5	6	9	26	72	121	
	50	-	-	4	5	7	9	33	88	146	
	55	-	-	5	5	7	13	38	105	173	
	60	-	-	6	5	8	17	43	122	201	
	65	-	-	7	5	8	22	50	135	227	
	70	-	3	4	6	8	26	58	146	251	

TABLE 1: STANDARD AIR DECOMPRESSION (METRES)

Depth (msw)	Bottom Time (min)	Stop Times (min) at Different Depths (msw)								Decom. Time (min)	Repet. Group
		24	21	18	15	12	9	6	3		
51	6	-	-	-	-	-	-	-	-	3	B
	10	-	-	-	-	-	-	5	8	13	D
	15	-	-	-	-	-	5	7	10	22	G
	20	-	-	-	-	5	5	8	20	38	I
	25	-	-	-	3	5	6	9	33	56	K
	30	-	-	-	5	5	7	10	46	73	M
	35	-	-	3	4	6	8	18	55	94	O
	40	-	-	4	5	6	8	26	68	117	
	45	-	-	5	5	7	9	32	85	143	
	50	-	-	6	6	7	13	37	105	174	
	55	-	3	4	6	7	18	44	122	204	
	60	-	4	4	6	8	23	51	137	233	
	65	-	5	4	6	9	27	61	148	260	
	70	-	5	5	6	12	30	72	155	285	
54	5	-	-	-	-	-	-	-	-	3	B
	10	-	-	-	-	-	-	6	9	15	E
	15	-	-	-	-	-	7	7	11	25	H
	20	-	-	-	-	6	6	8	25	45	J
	25	-	-	-	5	5	7	9	39	65	M
	30	-	-	3	4	6	7	15	50	85	O
	35	-	-	5	4	6	8	23	62	108	
	40	-	-	6	5	7	9	30	80	137	
	45	-	4	4	5	7	13	36	101	170	
	50	-	4	5	5	8	18	42	121	203	
	55	-	5	5	6	8	23	51	137	235	
	60	-	6	5	6	9	28	61	149	264	

AIR DIVING TABLES

TABLE 1: STANDARD AIR DECOMPRESSION (METRES)

Depth (msw)	Bottom Time (min)	Stop Times (min) at Different Depths (msw)										Decom. Time (min)
		30	27	24	21	18	15	12	9	6	3	
57	5	-	-	-	-	-	-	-	-	-	-	3
	10	-	-	-	-	-	-	-	-	8	9	17
	15	-	-	-	-	-	-	4	5	7	11	27
	20	-	-	-	-	-	4	4	6	9	29	52
	25	-	-	-	-	-	7	5	7	10	44	73
	30	-	-	-	-	5	4	6	8	19	55	97
	35	-	-	-	3	4	5	6	9	27	72	126
	40	-	-	-	4	4	5	7	11	35	93	159
	45	-	-	-	5	5	5	8	17	41	116	197
	50	-	-	3	3	5	6	8	22	50	135	232
60	5	-	-	-	-	-	-	-	-	-	-	4
	10	-	-	-	-	-	-	-	-	10	9	19
	15	-	-	-	-	-	-	5	6	8	16	35
	20	-	-	-	-	-	5	5	6	10	33	59
	25	-	-	-	-	5	4	5	7	14	48	83
	30	-	-	-	3	4	4	6	9	23	62	111
	35	-	-	-	5	4	5	6	10	32	84	146
	40	-	-	-	6	4	6	7	15	38	109	185
	45	-	-	4	3	5	6	8	21	47	131	225
	50	-	-	5	4	4	7	9	27	58	147	261
63	5	-	-	-	-	-	-	-	-	-	5	5
	10	-	-	-	-	-	-	-	5	6	10	21
	15	-	-	-	-	-	-	7	6	8	20	41
	20	-	-	-	-	-	7	5	7	9	39	67
	25	-	-	-	-	6	4	6	8	17	52	93
	30	-	-	-	5	4	4	7	8	28	71	127
	35	-	-	3	3	4	6	7	12	35	97	167
	40	-	-	4	4	4	6	8	19	43	123	211
	45	-	-	5	4	5	6	9	25	54	142	250
	50	-	3	3	4	6	6	13	29	70	154	288

TABLE 1: STANDARD AIR DECOMPRESSION (METRES)

Depth (msw)	Bottom Time (min)	Stop Times (min) at Different Depths (msw)										Decom. Time (min)
		30	27	24	21	18	15	12	9	6	3	
66	5	-	-	-	-	-	-	-	-	-	7	7
	10	-	-	-	-	-	-	-	7	6	10	23
	15	-	-	-	-	-	4	5	5	9	24	47
	20	-	-	-	-	5	4	5	7	10	43	74
	25	-	-	-	4	4	4	6	8	21	58	105
	30	-	-	3	3	4	5	7	9	32	81	144
	35	-	-	5	3	4	6	7	16	39	110	190
	40	-	3	3	4	4	7	8	23	49	135	236
	45	-	4	3	4	5	7	11	28	65	151	278
69	5	-	-	-	-	-	-	-	-	-	8	8
	10	-	-	-	-	-	-	-	8	7	10	25
	15	-	-	-	-	-	6	4	6	9	28	53
	20	-	-	-	-	6	4	6	7	12	47	82
	25	-	-	-	6	3	5	6	9	24	65	118
	30	-	-	5	3	4	5	7	12	35	93	164
	35	-	3	3	4	4	6	8	19	44	123	214
	40	-	5	3	4	5	6	9	27	57	146	262
72	5	-	-	-	-	-	-	-	-	-	9	9
	10	-	-	-	-	-	-	4	5	7	11	27
	15	-	-	-	-	-	7	5	6	9	32	59
	20	-	-	-	4	4	4	5	8	16	50	91
	25	-	-	4	3	4	5	6	9	28	73	132
	30	-	-	6	3	5	5	8	15	37	106	185
	35	-	5	3	4	4	6	9	23	49	135	238
	40	3	3	3	4	6	6	13	28	67	153	286

TABLE 1S

SHORT STANDARD AIR

DECOMPRESSION (METRES)

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DCIEM DIVING MANUAL

AIR DIVING TABLES

TABLE 1S: SHORT STANDARD AIR DECOMPRESSION (METRES)

Depth (msw)	No-Decompression Bottom Times (min)				Decompression Required Bottom Times (min)			
6	30 A 60 B 90 C 120 D	150 E 180 F 240 G 300 H	360 I 420 J 480 K 600 L	720 M ∞				
9	30 A 45 B 60 C 90 D	100 E 120 F 150 G 180 H	190 I 210 J 240 K 270 L	300 M	330 N 360 O	400	420	480
12	22 A 30 B 40 C	60 D 70 E 80 F	90 G 120 H 130 I	150 J	160 K 170 L 180 M	200	210	220
15	18 A 25 B	30 C 40 D	50 E 60 F	75 G	90 H 100 I	110 J 120 K	128 L	137 M
18	14 A 20 B	25 C 30 D	40 E	50 F	60 G	70 H 80 I	88 J	95 K
Decompression Time in minutes at			3 msw		5	10	15	20
21	12 A 15 B	20 C	25 D	35 E	40 F	53 H	65 I	68 J
24	10 A 13 B	15 C	20 D	25 E	30 F	37 G	50 H	54 I
27	9 A	12 B	15 C	20 D	24 E	28 F	35 G	44 I
30	7 A	10 B	12 C	15 D	18 D	22 F	30 G	37 H
33		6 A	10 B	12 C	15 D	18 E	24 G	31 H
36		6 A	8 B	10 C	12 D	15 E	19 F	25 G
39			5 A	8 B	10 C	13 D	17 F	21 G
42			5 A	7 B	9 C	12 D	14 F	18 G
45			4 A	7 B	8 C	10 D	13 F	16 G
Decompression Time in minutes at			6 msw		-	-	5	10
			3 msw		5	10	10	10

DCIEM DIVING MANUAL

TABLE 2

IN-WATER OXYGEN DECOMPRESSION

(METRES)

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DCIEM DIVING MANUAL

AIR DIVING TABLES

TABLE 2: IN-WATER OXYGEN DECOMPRESSION (METRES)

Depth (msw)	Bottom Time (min)	Stop Times (min) at Different Depths (msw)						Decom. Time (min)	Repet. Group
		Air					O ₂		
		24	21	18	15	12	9		
15	75	-	-	-	-	-	-	1	G
	120	-	-	-	-	-	5	6	J
	130	-	-	-	-	-	10	11	J
	140	-	-	-	-	-	14	15	K
	160	-	-	-	-	-	19	20	
	180	-	-	-	-	-	23	24	
	200	-	-	-	-	-	27	28	
	220	-	-	-	-	-	31	32	
	240	-	-	-	-	-	35	36	
	260	-	-	-	-	-	38	39	
	280	-	-	-	-	-	41	42	
18	50	-	-	-	-	-	-	1	F
	80	-	-	-	-	-	5	6	H
	90	-	-	-	-	-	10	12	J
	100	-	-	-	-	-	15	17	J
	110	-	-	-	-	-	19	21	K
	120	-	-	-	-	-	22	24	K
	140	-	-	-	-	-	28	30	
	160	-	-	-	-	-	33	35	
	180	-	-	-	-	-	38	40	
	200	-	-	-	-	-	43	45	
	220	-	-	-	-	-	48	50	
	240	-	-	-	-	-	53	55	

O₂ stop times do not include ascent time to 9 msw.

TABLE 2: IN-WATER OXYGEN DECOMPRESSION (METRES)

Depth (msw)	Bottom Time (min)	Stop Times (min) at Different Depths (msw)						Decom. Time (min)	Repet. Group
		Air					O ₂		
		24	21	18	15	12	9		
21	35	-	-	-	-	-	-	1	E
	50	-	-	-	-	-	6	8	G
	70	-	-	-	-	-	12	14	I
	80	-	-	-	-	-	18	20	J
	90	-	-	-	-	-	23	25	K
	100	-	-	-	-	-	27	29	K
	110	-	-	-	-	-	30	32	
	120	-	-	-	-	-	34	36	
	130	-	-	-	-	-	37	39	
	140	-	-	-	-	-	41	43	
	150	-	-	-	-	-	44	46	
	160	-	-	-	-	-	47	49	
	170	-	-	-	-	-	51	53	
	180	-	-	-	-	-	54	56	
	190	-	-	-	-	-	57	59	
	200	-	-	-	-	-	60	62	
24	25	-	-	-	-	-	-	2	E
	35	-	-	-	-	-	6	8	G
	50	-	-	-	-	-	8	10	H
	55	-	-	-	-	-	12	14	H
	60	-	-	-	-	-	16	18	I
	70	-	-	-	-	-	23	25	J
	80	-	-	-	-	-	28	30	K
	90	-	-	-	-	-	32	34	
	100	-	-	-	-	-	37	39	
	110	-	-	-	-	-	41	43	
	120	-	-	-	-	-	45	47	
	130	-	-	-	-	-	49	51	
	140	-	-	-	-	-	53	55	
	150	-	-	-	-	-	58	60	
	160	-	-	-	-	-	62	64	

O₂ stop times do not include ascent time to 9 msw.

AIR DIVING TABLES

TABLE 2: IN-WATER OXYGEN DECOMPRESSION (METRES)

Depth (msw)	Bottom Time (min)	Stop Times (min) at Different Depths (msw)						Decom. Time (min)	Repet. Group
		Air					O ₂		
		24	21	18	15	12	9		
27	20	-	-	-	-	-	-	2	D
	25	-	-	-	-	-	5	7	E
	40	-	-	-	-	-	9	11	G
	45	-	-	-	-	-	11	13	H
	50	-	-	-	-	-	17	19	H
	55	-	-	-	-	-	22	24	I
	60	-	-	-	-	-	25	27	J
	70	-	-	-	-	-	31	33	
	80	-	-	-	-	-	36	38	
	90	-	-	-	-	-	42	44	
	100	-	-	-	-	-	47	49	
	110	-	-	-	-	-	52	54	
	120	-	-	-	-	-	57	59	
30	15	-	-	-	-	-	-	2	D
	20	-	-	-	-	-	5	7	E
	30	-	-	-	-	-	9	11	F
	35	-	-	-	-	-	10	12	G
	40	-	-	-	-	-	14	17	H
	45	-	-	-	-	-	20	22	I
	50	-	-	-	-	-	25	27	I
	55	-	-	-	-	-	29	31	J
	60	-	-	-	-	-	32	34	
	70	-	-	-	-	-	39	41	
	80	-	-	-	-	-	45	47	
	90	-	-	-	-	2	51	54	
	100	-	-	-	-	2	56	60	

TABLE 2: IN-WATER OXYGEN DECOMPRESSION (METRES)

Depth (msw)	Bottom Time (min)	Stop Times (min) at Different Depths (msw)						Decom. Time (min)	Repet. Group
		Air					O ₂		
		24	21	18	15	12	9		
33	12	-	-	-	-	-	-	2	C
	20	-	-	-	-	-	7	9	E
	25	-	-	-	-	-	9	11	F
	30	-	-	-	-	-	11	13	G
	35	-	-	-	-	-	15	17	H
	40	-	-	-	-	-	22	24	I
	45	-	-	-	-	-	27	29	J
	50	-	-	-	-	-	32	34	K
	55	-	-	-	-	-	36	38	K
	60	-	-	-	-	2	39	42	
	65	-	-	-	-	3	42	46	
	70	-	-	-	-	4	46	51	
	75	-	-	-	-	4	49	54	
	80	-	-	-	-	5	52	58	
	85	-	-	-	-	5	56	62	
	90	-	-	-	-	6	59	66	
	95	-	-	-	-	6	62	69	
	100	-	-	-	-	7	66	74	
	105	-	-	-	-	7	69	77	
	110	-	-	-	-	8	73	82	

O₂ stop times do not include ascent time to 9 msw.

AIR DIVING TABLES

TABLE 2: IN-WATER OXYGEN DECOMPRESSION (METRES)

Depth (msw)	Bottom Time (min)	Stop Times (min) at Different Depths (msw)						Decom. Time (min)	Repet. Group
		Air					O ₂		
		24	21	18	15	12	9		
36	10	-	-	-	-	-	-	2	C
	15	-	-	-	-	-	5	7	E
	20	-	-	-	-	-	8	10	F
	25	-	-	-	-	-	11	13	G
	30	-	-	-	-	-	13	15	H
	35	-	-	-	-	-	22	24	H
	40	-	-	-	-	-	28	30	I
	45	-	-	-	-	3	33	37	J
	50	-	-	-	-	4	37	42	K
	55	-	-	-	-	5	41	47	
	60	-	-	-	-	6	45	52	
	65	-	-	-	-	6	49	56	
	70	-	-	-	-	7	52	60	
	75	-	-	-	-	8	56	65	
	80	-	-	-	2	6	60	69	
	85	-	-	-	3	6	64	74	
	90	-	-	-	3	7	68	79	
	95	-	-	-	4	6	72	83	
	100	-	-	-	4	7	76	88	

O₂ stop times do not include ascent time to 9 msw.

TABLE 2: IN-WATER OXYGEN DECOMPRESSION (METRES)

Depth (msw)	Bottom Time (min)	Stop Times (min) at Different Depths (msw)						Decom. Time (min)	Repet. Group
		Air					O ₂		
		24	21	18	15	12	9		
39	8	-	-	-	-	-	-	2	B
	15	-	-	-	-	-	7	10	E
	20	-	-	-	-	-	10	13	G
	25	-	-	-	-	-	13	16	G
	30	-	-	-	-	-	21	24	H
	35	-	-	-	-	3	28	32	I
	40	-	-	-	-	4	33	38	J
	45	-	-	-	-	6	38	45	L
	50	-	-	-	-	7	42	50	
	55	-	-	-	2	6	46	55	
	60	-	-	-	3	6	51	61	
	65	-	-	-	4	6	55	66	
	70	-	-	-	4	7	59	71	
	75	-	-	-	5	6	64	76	
	80	-	-	-	5	7	68	81	
	85	-	-	-	6	7	73	87	
	90	-	-	-	6	8	78	93	
42	7	-	-	-	-	-	-	3	B
	10	-	-	-	-	-	4	7	D
	15	-	-	-	-	-	8	11	D
	20	-	-	-	-	-	12	15	G
	25	-	-	-	-	-	17	20	H
	30	-	-	-	-	4	26	31	I
	35	-	-	-	-	5	32	38	J
	40	-	-	-	-	7	37	45	K
	45	-	-	-	3	5	43	52	M
	50	-	-	-	4	6	47	58	
	55	-	-	-	5	6	52	64	
	60	-	-	-	6	6	57	70	
	65	-	-	-	6	7	62	76	
	70	-	-	-	7	7	67	82	
	75	-	-	3	5	7	72	88	
	80	-	-	3	6	7	77	94	
	85	-	-	4	5	8	83	101	
	90	-	-	4	6	8	89	108	

O₂ stop times do not include ascent time to 9 msw.

AIR DIVING TABLES

TABLE 2: IN-WATER OXYGEN DECOMPRESSION (METRES)

Depth (msw)	Bottom Time (min)	Stop Times (min) at Different Depths (msw)						Decom. Time (min)	Repet. Group
		Air					O ₂		
		24	21	18	15	12	9		
45	7	-	-	-	-	-	-	3	B
	10	-	-	-	-	-	5	8	D
	15	-	-	-	-	-	10	13	F
	20	-	-	-	-	-	13	16	G
	25	-	-	-	-	4	22	27	H
	30	-	-	-	-	6	30	37	I
	35	-	-	-	3	5	36	45	K
	40	-	-	-	4	6	42	53	M
	45	-	-	-	5	6	47	59	
	50	-	-	-	6	7	52	66	
	55	-	-	3	5	6	58	73	
	60	-	-	3	5	7	63	79	
	65	-	-	4	5	8	69	87	
	70	-	-	5	5	8	75	94	
	75	-	-	5	6	8	81	101	
	80	-	-	6	6	8	87	108	
48	6	-	-	-	-	-	-	3	B
	10	-	-	-	-	-	6	9	E
	15	-	-	-	-	-	11	14	F
	20	-	-	-	-	-	15	18	G
	25	-	-	-	-	6	26	33	I
	30	-	-	-	3	5	34	43	J
	35	-	-	-	5	5	40	51	L
	40	-	-	-	6	6	46	59	
	45	-	-	3	5	6	52	67	
	50	-	-	4	5	7	58	75	
	55	-	-	5	5	7	64	82	
	60	-	-	6	5	8	70	90	
	65	-	-	7	5	8	77	98	
	70	-	3	4	6	8	84	106	

O₂ stop times do not include ascent time to 9 msw.

TABLE 2: IN-WATER OXYGEN DECOMPRESSION (METRES)

Depth (msw)	Bottom Time (min)	Stop Times (min) at Different Depths (msw)						Decom. Time (min)	Repet. Group
		Air					O ₂		
		24	21	18	15	12	9		
51	6	-	-	-	-	-	-	3	B
	10	-	-	-	-	-	7	10	E
	15	-	-	-	-	-	12	15	G
	20	-	-	-	-	5	20	26	H
	25	-	-	-	3	5	30	39	J
	30	-	-	-	5	5	38	49	K
	35	-	-	3	4	6	44	58	M
	40	-	-	4	5	6	51	67	
	45	-	-	5	5	7	57	75	
	50	-	-	6	6	7	64	84	
	55	-	3	4	6	7	71	92	
	60	-	4	4	6	8	78	101	
	65	-	5	4	6	9	86	111	
	70	-	5	5	6	12	93	122	
54	5	-	-	-	-	-	-	3	B
	10	-	-	-	-	-	8	11	E
	15	-	-	-	-	-	14	18	G
	20	-	-	-	-	6	24	31	H
	25	-	-	-	5	5	34	45	J
	30	-	-	3	4	6	41	55	M
	35	-	-	5	4	6	48	64	
	40	-	-	6	5	7	55	74	
	45	-	4	4	5	7	63	84	
	50	-	4	5	5	8	70	93	
	55	-	5	5	6	8	78	103	
	60	-	6	5	6	9	86	113	

O₂ stop times do not include ascent time to 9 msw.

AIR DIVING TABLES

TABLE 2: IN-WATER OXYGEN DECOMPRESSION (METRES)

Depth (msw)	Bottom Time (min)	Stop Times (min) at Different Depths (msw)								Decom. Time (min)
		Air							O ₂	
		30	27	24	21	18	15	12	9	
57	5	-	-	-	-	-	-	-	-	3
	10	-	-	-	-	-	-	-	9	13
	15	-	-	-	-	-	-	4	14	19
	20	-	-	-	-	-	4	4	28	37
	25	-	-	-	-	-	7	5	37	50
	30	-	-	-	-	5	4	6	45	61
	35	-	-	-	3	4	5	6	52	71
	40	-	-	-	4	4	5	7	60	81
	45	-	-	-	5	5	5	8	68	92
	50	-	-	3	3	5	6	8	77	103
60	5	-	-	-	-	-	-	-	-	4
	10	-	-	-	-	-	-	-	10	14
	15	-	-	-	-	-	-	5	16	22
	20	-	-	-	-	-	5	5	31	42
	25	-	-	-	-	5	4	5	40	55
	30	-	-	-	3	4	4	6	49	67
	35	-	-	-	5	4	5	6	57	78
	40	-	-	-	6	4	6	7	65	89
	45	-	-	4	3	5	6	8	75	102
	50	-	-	5	4	4	7	9	84	114
63	10	-	-	-	-	-	-	-	11	15
	15	-	-	-	-	-	-	7	21	29
	20	-	-	-	-	-	7	5	33	46
	25	-	-	-	-	6	4	6	43	60
	30	-	-	-	5	4	4	7	52	73
	35	-	-	3	3	4	6	7	61	85
	40	-	-	4	4	4	6	8	71	98
	45	-	-	5	4	5	6	9	81	111
	50	-	3	3	4	6	6	13	91	127

O₂ stop times do not include ascent time to 9 msw.

TABLE 2: IN-WATER OXYGEN DECOMPRESSION (METRES)

Depth (msw)	Bottom Time (min)	Stop Times (min) at Different Depths (msw)								Decom. Time (min)
		Air							O ₂	
		30	27	24	21	18	15	12	9	
66	10	-	-	-	-	-	-	-	12	16
	15	-	-	-	-	-	4	5	24	34
	20	-	-	-	-	5	4	5	36	51
	25	-	-	-	4	4	4	6	47	66
	30	-	-	3	3	4	5	7	56	79
	35	-	-	5	3	4	6	7	66	92
	40	-	3	3	4	4	7	8	77	107
	45	-	4	3	4	5	7	11	88	123
69	10	-	-	-	-	-	-	-	14	18
	15	-	-	-	-	-	6	4	27	38
	20	-	-	-	-	6	4	6	39	56
	25	-	-	-	6	3	5	6	50	71
	30	-	-	5	3	4	5	7	60	85
	35	-	3	3	4	4	6	8	72	101
	40	-	5	3	4	5	6	9	84	117
72	5	-	-	-	-	-	-	-	4	8
	10	-	-	-	-	-	-	4	14	19
	15	-	-	-	-	-	7	5	29	42
	20	-	-	-	4	4	4	5	42	60
	25	-	-	4	3	4	5	6	53	76
	30	-	-	6	3	5	5	8	65	93
	35	-	5	3	4	4	6	9	77	109
	40	3	3	3	4	6	6	13	90	129

O₂ stop times do not include ascent time to 9 msw.

TABLE 2S

**SHORT IN-WATER OXYGEN
DECOMPRESSION (METRES)**

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DCIEM DIVING MANUAL

AIR DIVING TABLES

TABLE 2S: SHORT IN-WATER OXYGEN DECOMPRESSION (METRES)

Depth (msw)	No-Decompression Bottom Times (min)			Decompression Required Bottom Times (min)			
15	30 C	50 E	75 G	120 J	130 J	145	165
18	20 B	30 D	50 F	80 H	90 J	100 J	115 K
21	15 B	25 D	35 E	47 F	67 H	74 I	84 J
24	10 A	20 D	25 E	34 F	53 H	58 H	65 I
27	9 A	15 C	20 D	26 E	42 G	48 H	53 I
30	7 A	10 B	15 D	21 E	35 G	40 H	45 I
33	6 A	10 B	12 C	17 D	29 G	35 H	38 H
36		6 A	10 C	15 D	24 G	30 H	33 H
39		5 A	8 B	13 D	20 G	27 G	29 H
42		5 A	7 B	11 D	18 F	24 G	26 H
45			7 B	10 D	16 F	22 G	24 H
48			6 B	9 D	14 F	20 G	21 H
51			6 B	8 C	13 E	18 G	20 H
54			5 B	8 C	11 E	16 G	18 G
Decompression Time (min) Oxygen at 9 msw				5	10	15	20
Note: Decompression stop times do not include ascent time to 9 msw.							

TABLE 3

SURFACE DECOMPRESSION

WITH OXYGEN (METRES)

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TABLE 3: SURFACE DECOMPRESSION WITH OXYGEN (METRES)

Depth (msw)	Bottom Time (min)	Stop Times (min) at Different Depths (msw)						Surface Interval	RCC O ₂ 40	Decom. Time (min)	Repet. Group
		In-Water Stops									
		Air									
		80	70	60	50	40	30				
18	50	-	-	-	-	-	-	Time from leaving the 9 msw stop (or the bottom, if no in-water stop is required) to reaching the 12 msw Chamber stop must not exceed 7 minutes.	-	1	F
	70	-	-	-	-	-	-		10	18	H
	80	-	-	-	-	-	-		16	24	H
	90	-	-	-	-	-	-		20	28	I
	100	-	-	-	-	-	-		24	32	J
	110	-	-	-	-	-	-		28	36	K
	120	-	-	-	-	-	-		30	38	K
	130	-	-	-	-	-	-		32*	45	
	140	-	-	-	-	-	-		38*	51	
	150	-	-	-	-	-	-		42*	55	
	160	-	-	-	-	-	-		46*	59	
	170	-	-	-	-	-	-		50*	65	
	180	-	-	-	-	-	-		54*	68	
	190	-	-	-	-	-	-		57*	70	
	200	-	-	-	-	-	-		60*	73	
	210	-	-	-	-	-	-		63**	81	
	220	-	-	-	-	-	-		69**	87	
230	-	-	-	-	-	-	73**	92			
240	-	-	-	-	-	-	77**	95			

Note: asterisk (*) indicates number of 5 minute air breaks required.

TABLE 3: SURFACE DECOMPRESSION WITH OXYGEN (METRES)

Depth (msw)	Bottom Time (min)	Stop Times (min) at Different Depths (msw)						Surface Interval	RCC O ₂	Decom. Time (min)	Repet. Group
		In-Water Stops									
		Air									
		80	70	60	50	40	30				
21	35	-	-	-	-	-	-	-	-	1	E
	50	-	-	-	-	-	-	6	14	H	
	60	-	-	-	-	-	-	15	23	H	
	70	-	-	-	-	-	-	21	29	I	
	80	-	-	-	-	-	-	26	34	J	
	90	-	-	-	-	-	-	30	38	K	
	100	-	-	-	-	-	-	34*	47	K	
	110	-	-	-	-	-	-	40*	53		
	120	-	-	-	-	-	-	45*	58		
	130	-	-	-	-	-	-	50*	63		
	140	-	-	-	-	-	-	55*	68		
	150	-	-	-	-	-	-	59*	72		
	160	-	-	-	-	-	-	63**	81		
	170	-	-	-	-	-	-	71**	89		
	180	-	-	-	-	-	-	76**	94		
190	-	-	-	-	-	-	81**	99			
200	-	-	-	-	-	1	85**	104			
Time from leaving the 9 msw stop (or the bottom, if no in-water stop is required) to reaching the 12 msw Chamber stop must not exceed 7 minutes.											
Note: asterisk (*) indicates number of 5 minute air breaks required.											

AIR DIVING TABLES

TABLE 3: SURFACE DECOMPRESSION WITH OXYGEN (METRES)

Depth (msw)	Bottom Time (min)	Stop Times (min) at Different Depths (msw)						Surface Interval	RCC O ₂	Decom. Time (min)	Repet. Group
		In-Water Stops									
		Air									
		80	70	60	50	40	30		40		
24	25	-	-	-	-	-	-	Time from leaving the 9 msw stop (or the bottom, if no in-water stop is required) to reaching the 12 msw Chamber stop must not exceed 7 minutes.	-	2	E
	45	-	-	-	-	-	-		12	20	H
	50	-	-	-	-	-	-		17	25	H
	55	-	-	-	-	-	-		21	29	H
	60	-	-	-	-	-	-		24	32	I
	70	-	-	-	-	-	-		30	38	J
	80	-	-	-	-	-	-		35*	48	K
	90	-	-	-	-	-	-		42*	55	
	100	-	-	-	-	-	2		47*	62	
	110	-	-	-	-	-	2		53*	68	
	120	-	-	-	-	-	3		58*	74	
	130	-	-	-	-	-	4		62**	84	
	140	-	-	-	-	-	4		72**	94	
	150	-	-	-	-	-	5	78**	101		
	160	-	-	-	-	-	5	84**	107		

Note: asterisk (*) indicates number of 5 minute air breaks required.

TABLE 3: SURFACE DECOMPRESSION WITH OXYGEN (METRES)

Depth (msw)	Bottom Time (min)	Stop Times (min) at Different Depths (msw)						Surface Interval	RCC O ₂ 40	Decom. Time (min)	Repet. Group
		In-Water Stops									
		Air									
		80	70	60	50	40	30				
27	20	-	-	-	-	-	-	-	-	2	D
	35	-	-	-	-	-	-	8	16	G	
	40	-	-	-	-	-	-	16	24	G	
	45	-	-	-	-	-	-	21	29	H	
	50	-	-	-	-	-	-	25	33	H	
	55	-	-	-	-	-	1	28	37	I	
	60	-	-	-	-	-	2	30*	45	J	
	70	-	-	-	-	-	3	37*	53		
	80	-	-	-	-	-	4	45*	62		
	90	-	-	-	-	-	5	52*	70		
	100	-	-	-	-	-	6	58*	77		
	110	-	-	-	-	-	7	65**	90		
120	-	-	-	-	-	8	74**	100			
30	15	-	-	-	-	-	-	-	-	2	D
	30	-	-	-	-	-	-	8	16	G	
	35	-	-	-	-	-	-	17	25	G	
	40	-	-	-	-	-	2	22	32	H	
	45	-	-	-	-	-	3	27	38	I	
	50	-	-	-	-	-	4	30	42	I	
	55	-	-	-	-	-	5	31*	49	J	
	60	-	-	-	-	-	6	37*	56		
	70	-	-	-	-	-	7	46*	66		
	80	-	-	-	-	-	8	54*	75		
	90	-	-	-	-	2	8	60*	83		
	100	-	-	-	-	3	8	72**	101		
	110	-	-	-	-	4	8	81**	111		

Note: asterisk (*) indicates number of 5 minute air breaks required.

Note: asterisk (*) indicates number of 5 minute air breaks required.

AIR DIVING TABLES

TABLE 3: SURFACE DECOMPRESSION WITH OXYGEN (METRES)

Depth (msw)	Bottom Time (min)	Stop Times (min) at Different Depths (msw)						Surface Interval	RCC O ₂ 40	Decom. Time (min)	Repet. Group
		In-Water Stops									
		Air									
		80	70	60	50	40	30				
33	12	-	-	-	-	-	-	Time from leaving the 9 msw stop (or the bottom, if no in-water stop is required) to reaching the 12 msw Chamber stop must not exceed 7 minutes.	-	2	C
	25	-	-	-	-	-	-		7	15	G
	30	-	-	-	-	-	2		16	28	G
	35	-	-	-	-	-	3		22	33	H
	40	-	-	-	-	-	5		27	40	I
	45	-	-	-	-	-	6		30*	49	J
	50	-	-	-	-	-	7		35*	55	K
	55	-	-	-	-	-	8		40*	61	K
	60	-	-	-	-	2	7		45*	67	
	65	-	-	-	-	3	7		50*	73	
	70	-	-	-	-	4	7		54*	78	
	75	-	-	-	-	4	8		59*	84	
	80	-	-	-	-	5	8		60**	91	
	85	-	-	-	-	5	9		69**	101	
	90	-	-	-	-	6	9		75**	108	
	95	-	-	-	-	6	9		80**	113	
	100	-	-	-	-	7	9		85**	119	
	105	-	-	-	-	7	12		89**	126	
	110	-	-	-	-	8	15		93***	139	

Note: asterisk (*) indicates number of 5 minute air breaks required.

TABLE 3: SURFACE DECOMPRESSION WITH OXYGEN (METRES)

Depth (msw)	Bottom Time (min)	Stop Times (min) at Different Depths (msw)						Surface Interval	RCC O ₂ 40	Decom. Time (min)	Repet. Group
		In-Water Stops									
		Air									
		80	70	60	50	40	30				
36	10	-	-	-	-	-	-	Time from leaving the 9 msw stop (or the bottom, if no in-water stop is required) to reaching the 12 msw Chamber stop must not exceed 7 minutes.	-	2	C
	20	-	-	-	-	-	-		7	15	F
	25	-	-	-	-	-	2		13	23	G
	30	-	-	-	-	-	4		21	33	G
	35	-	-	-	-	-	6		27	41	H
	40	-	-	-	-	-	8		30*	51	I
	45	-	-	-	-	3	6		36*	58	J
	50	-	-	-	-	4	7		42*	66	K
	55	-	-	-	-	5	7		48*	73	
	60	-	-	-	-	6	7		53*	79	
	65	-	-	-	-	6	8		58*	85	
	70	-	-	-	-	7	8		60**	93	
	75	-	-	-	-	8	8		70**	104	
	80	-	-	-	2	6	9		76**	111	
	85	-	-	-	3	6	10		82**	119	
	90	-	-	-	3	7	13		87**	128	
95	-	-	-	4	6	16	90**	134			
100	-	-	-	4	7	19	100***	153			
Note: asterisk (*) indicates number of 5 minute air breaks required.											

TABLE 3: SURFACE DECOMPRESSION WITH OXYGEN (METRES)

Depth (msw)	Bottom Time (min)	Stop Times (min) at Different Depths (msw)						Surface Interval	RCC O ₂ 40	Decom. Time (min)	Repet. Group
		In-Water Stops									
		Air									
		80	70	60	50	40	30				
39	8	-	-	-	-	-	-	Time from leaving the 9 msw stop (or the bottom, if no in-water stop is required) to reaching the 12 msw Chamber stop must not exceed 7 minutes.	-	2	B
	20	-	-	-	-	-	-		8	16	G
	25	-	-	-	-	-	5		18	31	G
	30	-	-	-	-	-	7		26	41	H
	35	-	-	-	-	3	6		30*	52	I
	40	-	-	-	-	4	7		36*	60	J
	45	-	-	-	-	6	7		43*	69	K
	50	-	-	-	-	7	7		49*	76	
	55	-	-	-	2	6	8		54*	83	
	60	-	-	-	3	6	8		60*	90	
	65	-	-	-	4	6	8		67**	103	
	70	-	-	-	4	7	9		75**	113	
	75	-	-	-	5	6	11		81**	121	
	80	-	-	-	5	7	14		87**	131	
	85	-	-	-	6	7	17		90***	143	
90	-	-	-	6	8	20	101***	158			

Note: asterisk (*) indicates number of 5 minute air breaks required.

TABLE 3: SURFACE DECOMPRESSION WITH OXYGEN (METRES)

Depth (msw)	Bottom Time (min)	Stop Times (min) at Different Depths (msw)						Surface Interval	RCC O ₂ 40	Decom. Time (min)	Repet. Group
		In-Water Stops									
		Air									
		80	70	60	50	40	30				
42	7	-	-	-	-	-	-	Time from leaving the 9 msw stop (or the bottom, if no in-water stop is required) to reaching the 12 msw Chamber stop must not exceed 7 minutes.	-	3	B
	15	-	-	-	-	-	-		7	15	F
	20	-	-	-	-	-	4		12	24	G
	25	-	-	-	-	-	7		23	38	H
	30	-	-	-	-	4	6		30	48	I
	35	-	-	-	-	5	7		34*	59	J
	40	-	-	-	-	7	7		42*	69	K
	45	-	-	-	3	5	8		49*	78	M
	50	-	-	-	4	6	8		55*	86	
	55	-	-	-	5	6	8		60**	97	
	60	-	-	-	6	6	9		70**	109	
	65	-	-	-	6	7	10		78**	119	
	70	-	-	-	7	7	14		84**	130	
	75	-	-	3	5	7	18		90**	141	
	80	-	-	3	6	7	21		100***	160	
85	-	-	4	5	8	25	107***	172			
90	-	-	4	6	8	28	113***	182			

Note: asterisk (*) indicates number of 5 minute air breaks required.

AIR DIVING TABLES

TABLE 3: SURFACE DECOMPRESSION WITH OXYGEN (METRES)

Depth (msw)	Bottom Time (min)	Stop Times (min) at Different Depths (msw)						Surface Interval	RCC O ₂	Decom. Time (min)	Repet. Group
		In-Water Stops									
		Air									
		80	70	60	50	40	30		40		
45	7	-	-	-	-	-	-	Time from leaving the 9 msw stop (or the bottom, if no in-water stop is required) to reaching the 12 msw Chamber stop must not exceed 7 minutes.	-	3	B
	15	-	-	-	-	-	-		8	16	G
	20	-	-	-	-	-	6		17	31	G
	25	-	-	-	-	4	5		27	44	H
	30	-	-	-	-	6	6		30*	55	I
	35	-	-	-	3	5	7		40*	68	K
	40	-	-	-	4	6	7		48*	78	M
	45	-	-	-	5	6	8		55*	87	
	50	-	-	-	6	7	8		60**	99	
	55	-	-	3	5	6	9		72**	113	
	60	-	-	3	5	7	12		80**	125	
	65	-	-	4	5	8	16		87**	138	
	70	-	-	5	5	8	20		95***	156	
	75	-	-	5	6	8	24		105***	171	
	80	-	-	6	6	8	28		111***	182	
48	6	-	-	-	-	-	-	Time from leaving the 9 msw stop (or the bottom, if no in-water stop is required) to reaching the 12 msw Chamber stop must not exceed 7 minutes.	-	3	B
	15	-	-	-	-	-	4		7	19	G
	20	-	-	-	-	-	8		21	37	G
	25	-	-	-	-	6	6		30	50	I
	30	-	-	-	3	5	7		37*	65	J
	35	-	-	-	5	5	8		46*	77	L
	40	-	-	-	6	6	8		54*	87	
	45	-	-	3	5	6	9		60*	96	
	50	-	-	4	5	7	9		72**	115	
	55	-	-	5	5	7	13		81**	129	
	60	-	-	6	5	8	17		88**	142	
	65	-	-	7	5	8	22		99***	164	
	70	-	3	4	6	8	26		108***	178	

Note: asterisk (*) indicates number of 5 minute air breaks required.

TABLE 3: SURFACE DECOMPRESSION WITH OXYGEN (METRES)

Depth (msw)	Bottom Time (min)	Stop Times (min) at Different Depths (msw)						Surface Interval	RCC O ₂	Decom. Time (min)	Repet. Group
		In-Water Stops									
		Air									
		80	70	60	50	40	30		40		
51	6	-	-	-	-	-	-	Time from leaving the 9 msw stop (or the bottom, if no in-water stop is required) to reaching the 12 msw Chamber stop must not exceed 7 minutes.	-	3	B
	10	-	-	-	-	-	-		6	14	D
	15	-	-	-	-	-	5		11	24	G
	20	-	-	-	-	5	5		25	43	H
	25	-	-	-	3	5	6		30*	57	J
	30	-	-	-	5	5	7		42*	72	K
	35	-	-	3	4	6	8		51*	85	M
	40	-	-	4	5	6	8		60*	96	
	45	-	-	5	5	7	9		70**	114	
	50	-	-	6	6	7	13		80**	130	
	55	-	3	4	6	7	18		89**	145	
	60	-	4	4	6	8	23		101***	169	
	65	-	5	4	6	9	27		110***	184	
	70	-	5	5	6	12	30		117***	198	
54	5	-	-	-	-	-	-	Time from leaving the 9 msw stop (or the bottom, if no in-water stop is required) to reaching the 12 msw Chamber stop must not exceed 7 minutes.	-	3	B
	10	-	-	-	-	-	-		7	15	E
	15	-	-	-	-	-	7		15	30	G
	20	-	-	-	-	6	6		28	48	H
	25	-	-	-	5	5	7		36*	66	J
	30	-	-	3	4	6	7		47*	80	M
	35	-	-	5	4	6	8		56*	92	
	40	-	-	6	5	7	9		66**	111	
	45	-	4	4	5	7	13		78**	129	
	50	-	4	5	5	8	18		88**	146	
	55	-	5	5	6	8	23		101***	171	
	60	-	6	5	6	9	28		110***	187	

Note: asterisk (*) indicates number of 5 minute air breaks required.

Note: asterisk (*) indicates number of 5 minute air breaks required.

AIR DIVING TABLES

TABLE 3: SURFACE DECOMPRESSION WITH OXYGEN (METRES)

Depth (msw)	Bottom Time (min)	Stop Times (min) at Different Depths (msw)								Surface Interval	RCC O ₂ 12	Decom. Time (min)
		In-Water Stops										
		Air										
		30	27	24	21	18	15	12	9			
57	5	-	-	-	-	-	-	-	-	-	3	
	10	-	-	-	-	-	-	-	-	8	16	
	15	-	-	-	-	-	-	4	5	19	36	
	20	-	-	-	-	-	4	4	6	30	54	
	25	-	-	-	-	-	7	5	7	41*	73	
	30	-	-	-	-	5	4	6	8	52*	88	
	35	-	-	-	3	4	5	6	9	60*	100	
	40	-	-	-	4	4	5	7	11	75**	124	
	45	-	-	-	5	5	5	8	17	85**	143	
	50	-	-	3	3	5	6	8	22	99***	169	
	55	-	-	4	3	5	7	9	27	110***	188	
60	5	-	-	-	-	-	-	-	-	-	4	
	10	-	-	-	-	-	-	-	-	9	17	
	15	-	-	-	-	-	-	5	6	22	41	
	20	-	-	-	-	-	5	5	6	31*	60	
	25	-	-	-	-	5	4	5	7	45*	79	
	30	-	-	-	3	4	4	6	9	56*	95	
	35	-	-	-	5	4	5	6	10	69**	117	
	40	-	-	-	6	4	6	7	15	82**	138	
	45	-	-	4	3	5	6	8	21	92***	162	
	50	-	-	5	4	4	7	9	27	108***	187	
63	10	-	-	-	-	-	-	-	5	7	20	
	15	-	-	-	-	-	-	7	6	25	46	
	20	-	-	-	-	-	7	5	7	36*	68	
	25	-	-	-	-	6	4	6	8	49*	86	
	30	-	-	-	5	4	4	7	8	60*	101	
	35	-	-	3	3	4	6	7	12	76**	129	
	40	-	-	4	4	4	6	8	19	88**	151	
	45	-	-	5	4	5	6	9	25	105***	182	
	50	-	3	3	4	6	6	13	29	116***	203	

Note: asterisk (*) indicates number of 5 minute air breaks required.

Note: asterisk (*) indicates number of 5 minute air breaks required.

TABLE 3: SURFACE DECOMPRESSION WITH OXYGEN (METRES)

Depth (msw)	Bottom Time (min)	Stop Times (min) at Different Depths (msw)									Surface Interval	RCC O ₂ 12	Decom. Time (min)
		In-Water Stops											
		Air											
		30	27	24	21	18	15	12	9				
66	10	-	-	-	-	-	-	-	7	Time from leaving the 9 msw stop to reaching the 12 msw Chamber stop must not exceed 7 minutes.	7	22	
	15	-	-	-	-	-	4	5	5		28	50	
	20	-	-	-	-	5	4	5	7		40*	74	
	25	-	-	-	4	4	4	6	8		54*	93	
	30	-	-	3	3	4	5	7	9		68**	117	
	35	-	-	5	3	4	6	7	16		83**	142	
	40	-	3	3	4	4	7	8	23		99***	174	
	45	-	4	3	4	5	7	11	28		112***	197	
69	10	-	-	-	-	-	-	-	8		11	27	
	15	-	-	-	-	-	6	4	6		30	54	
	20	-	-	-	-	6	4	6	7		44*	80	
	25	-	-	-	6	3	5	6	9		58*	100	
	30	-	-	5	3	4	5	7	12		75**	129	
	35	-	3	3	4	4	6	8	19		89**	154	
	40	-	5	3	4	5	6	9	27		107***	189	
72	10	-	-	-	-	-	-	4	5		14	31	
	15	-	-	-	-	-	7	5	6		30*	61	
	20	-	-	-	4	4	4	5	8		48*	86	
	25	-	-	4	3	4	5	6	9		60**	109	
	30	-	-	6	3	5	5	8	15		80**	140	
	35	-	5	3	4	4	6	9	23		98***	175	
	40	3	3	3	4	6	6	13	28		114***	203	

Note: asterisk (*) indicates number of 5 minute air breaks required.

TABLE 4

REPETITIVE DIVING (METRES)

- A. REPETITIVE FACTORS/SURFACE INTERVALS TABLE**
- B. NO-DECOMPRESSION REPETITIVE DIVING TABLE**

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TABLE 4: REPETITIVE DIVING (METRES)

A. REPETITIVE FACTORS/SURFACE INTERVALS TABLE											
Repet. Group (RG)	Repetitive Factors (RF) for Surface Intervals (SI) in hr:min										
	0:15 → 0:29	0:30 → 0:59	1:00 → 1:29	1:30 → 1:59	2:00 → 2:59	3:00 → 3:59	4:00 → 5:59	6:00 → 8:59	9:00 → 11:59	12:00 → 14:59	15:00 → 18:00
A	1.4	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.0	1.0	1.0
B	1.5	1.3	1.2	1.2	1.2	1.1	1.1	1.1	1.1	1.0	1.0
C	1.6	1.4	1.3	1.2	1.2	1.2	1.1	1.1	1.1	1.0	1.0
D	1.8	1.5	1.4	1.3	1.3	1.2	1.2	1.1	1.1	1.0	1.0
E	1.9	1.6	1.5	1.4	1.3	1.3	1.2	1.2	1.1	1.1	1.0
F	2.0	1.7	1.6	1.5	1.4	1.3	1.3	1.2	1.1	1.1	1.0
G	-	1.9	1.7	1.6	1.5	1.4	1.3	1.2	1.1	1.1	1.0
H	-	-	1.9	1.7	1.6	1.5	1.4	1.3	1.1	1.1	1.1
I	-	-	2.0	1.8	1.7	1.5	1.4	1.3	1.1	1.1	1.1
J	-	-	-	1.9	1.8	1.6	1.5	1.3	1.2	1.1	1.1
K	-	-	-	2.0	1.9	1.7	1.5	1.3	1.2	1.1	1.1
L	-	-	-	-	2.0	1.7	1.6	1.4	1.2	1.1	1.1
M	-	-	-	-	-	1.8	1.6	1.4	1.2	1.1	1.1
N	-	-	-	-	-	1.9	1.7	1.4	1.2	1.1	1.1
O	-	-	-	-	-	2.0	1.7	1.4	1.2	1.1	1.1

B. NO-DECOMPRESSION REPETITIVE DIVING TABLE										
Depth (msw)	Allowable No-D Limits (min) for Repetitive Factors (RF)									
	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0
9	272	250	230	214	200	187	176	166	157	150
12	136	125	115	107	100	93	88	83	78	75
15	60	55	50	45	41	38	36	34	32	31
18	40	35	31	29	27	26	24	23	22	21
21	30	25	21	19	18	17	16	15	14	13
24	20	18	16	15	14	13	12	12	11	11
27	16	14	12	11	11	10	9	9	8	8
30	13	11	10	9	9	8	8	7	7	7
33	10	9	8	8	7	7	6	6	6	6
36	8	7	7	6	6	6	5	5	5	5
39	7	6	6	5	5	5	4	4	4	4
42	6	5	5	5	4	4	4	3	3	3
45	5	5	4	4	4	3	3	3	3	3

DCIEM DIVING MANUAL

TABLE 5

DEPTH CORRECTIONS FOR DIVING AT ALTITUDE (METRES)

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TABLE 5: DEPTH CORRECTIONS - DIVING AT ALTITUDE (METRES)

Actual Depth (metres)	Depth Correction at Altitude (metres)								
	100 → 299	300 → 599	600 → 899	900 → 1199	1200 → 1499	1500 → 1799	1800 → 2099	2100 → 2399	2400 → 3000
9	+0	+3	+3	+3	+3	+3	+3	+6	+6
12	+0	+3	+3	+3	+3	+3	+6	+6	+6
15	+0	+3	+3	+3	+3	+6	+6	+6	+6
18	+0	+3	+3	+3	+6	+6	+6	+6	+9
21	+0	+3	+3	+3	+6	+6	+6	+9	+9
24	+0	+3	+3	+6	+6	+6	+9	+9	+12
27	+0	+3	+3	+6	+6	+6	+9	+9	+12
30	+0	+3	+3	+6	+6	+9	+9	+9	+12
33	+0	+3	+6	+6	+6	+9	+9	+12	+15
36	+0	+3	+6	+6	+6	+9	+9	+12	+15
39	+0	+3	+6	+6	+9	+9	+12	+12	+15
42	+0	+3	+6	+6	+9	+9	+12	+12	+18
45	+3	+3	+6	+6	+9	+9	+12	+15	+18
48	+3	+6	+6	+9	+9	+12	+12	+15	+18
51	+3	+6	+6	+9	+9	+12	+15	+15	+21
54	+3	+6	+6	+9	+9	+12	+15	+15	
57	+3	+6	+6	+9	+12	+12	+15		
60	+3	+6	+6	+9	+12	+12			
63	+3	+6	+6	+9					
66	+3	+6							
69	+3								
Sea Level Stop Depth (metres)	Actual Decompression Stop Depth at Altitude (metres)								
	100 → 299	300 → 599	600 → 899	900 → 1199	1200 → 1499	1500 → 1799	1800 → 2099	2100 → 2399	2400 → 3000
3	3.0	3.0	3.0	3.0	3.0	2.5	2.5	2.5	2.5
6	6.0	6.0	6.0	5.5	5.5	5.0	5.0	5.0	4.5
9	9.0	9.0	8.5	8.5	8.0	7.5	7.5	7.0	7.0
12	12.0	12.0	11.5	11.0	10.5	10.0	10.0	9.5	9.0
15	15.0	14.5	14.0	13.5	13.0	12.5	12.0	12.0	11.5
18	18.0	17.5	17.0	16.5	16.0	15.0	14.5	14.0	13.5
21	21.0	20.5	20.0	19.0	18.5	17.5	17.0	16.5	16.0
24	24.0	23.5	22.5	21.5	21.0	20.0	19.5	19.0	18.0
27	27.0	26.0	25.5	24.5	23.5	22.5	22.0	21.0	20.0

DCIEM DIVING MANUAL

APPENDIX C

WORKSHEETS

DCIEM DIVING MANUAL

REPETITIVE DIVING WORKSHEET (FEET)**FIRST DIVE:**

_____ fsw/_____ min

Table Used _____

1st Dive Repetitive Group _____

SECOND DIVE:

SI _____ hr _____ min

RF _____ (Table 4A)

Depth _____ fsw

Table Used _____

Allowable No-D Limit (Table 4B) _____ min

Planned Bottom Time (BT) _____ min

EBT = (RF) _____ x (BT) _____ = _____

Decompression required: Yes ☐ No ☐

DECOMPRESSION SCHEDULE: _____ fsw/(EBT) _____ min

_____ fsw _____ min

_____ fsw _____ min

_____ fsw _____ min

O₂ Stop (If required)

_____ fsw _____ min _____ fsw _____ min

2nd Dive Repetitive Group _____ (from Table Used)

2nd Dive Adjusted Repetitive Group _____

NOTE: If the BT exceeds the allowable No-D Limit in Table 4B, but the EBT is less than the No-D Limit in Table 1S, a 5 - minute decompression stop at 10 fsw is required.

REPETITIVE DIVING WORKSHEET (METRES)

FIRST DIVE:

_____msw/_____min

Table Used _____

1st Dive Repetitive Group _____

SECOND DIVE:

SI _____hr _____min

RF _____ (Table 4A)

Depth _____msw

Table Used _____

Allowable No-D Limit (Table 4B) _____min

Planned Bottom Time (BT) _____min

EBT = (RF) _____ x (BT) _____ = _____

Decompression required:

Yes

☐

No

☐

DECOMPRESSION SCHEDULE: _____msw/(EBT) _____min

_____msw _____min

_____msw _____min

_____msw _____min

 O₂ Stop (if required)

_____msw _____min

_____msw _____min

2nd Dive Repetitive Group _____ (from Table Used)

2nd Dive Adjusted Repetitive Group _____

NOTE: If the BT exceeds the allowable No-D Limit in Table 4B, but the EBT is less than the No-D Limit in Table 1S, a 5 - minute decompression stop at 10 fsw is required.

ALTITUDE DIVING WORKSHEET (FEET)

ALTITUDE OF DIVE SITE _____ ft

ACTUAL DEPTH OF DIVE (a) _____ fsw

DIVE DEPTH CORRECTION (b) + _____ fsw

EFFECTIVE DEPTH (ED) (a+b) _____ fsw

BOTTOM TIME (BT) _____ min

Schedule Required (ED/BT) _____ fsw/ _____ min

Table Used _____

ALTITUDE DECOMPRESSION SCHEDULE

Sea Level Stop Depth	Actual Stop Depth	Stop Time
50 fsw	_____ fsw	_____ min
40 fsw	_____ fsw	_____ min
30 fsw	_____ fsw	_____ min
20 fsw	_____ fsw	_____ min
10 fsw	_____ fsw	_____ min
O ₂ Stop	_____ fsw	_____ min

Repetitive Group _____

ALTITUDE DIVING WORKSHEET (METRES)

ALTITUDE OF DIVE SITE _____m

ACTUAL DEPTH OF DIVE (a) _____msw

DIVE DEPTH CORRECTION (b) + _____msw

EFFECTIVE DEPTH (ED) (a+b) _____msw

BOTTOM TIME (BT) _____min

Schedule Required (ED/BT) _____msw/_____min

Table Used _____

ALTITUDE DECOMPRESSION SCHEDULE

Sea Level Stop Depth	Actual Stop Depth	Stop Time
15 msw	_____msw	_____min
12 msw	_____msw	_____min
9 msw	_____msw	_____min
6 msw	_____msw	_____min
3 msw	_____msw	_____min
O ₂ Stop	_____msw	_____min

Repetitive Group _____

DIVER	Rank	Tender	Rank	Date :	
DIVER	Rank	Tender	Rank	Table Used	
SUPERVISOR	Rank	Schedule Used	O2%	Depth in FT	Bottom Time
Left surface (Clock Time)	Left bottom	Max Time to 1st Stop	Reached surface (Clock Time)		
Total decomp. time	Total time of dive	Repet Group	CHARTMAN (Print)		Rank

REMARKS	STOPS IN FEET	STAND AIR TABLE	Decompression Time		EMERG AIR	Event Time	
			water	chamber		water	chamber
	10					L	
						S	
	20					L	
						S	
	30					L	
						S	
	40					L	
						S	
	50					L	
						S	
	60					L	
						S	
	70					L	
						S	
	80					L	
						S	
	90					L	
						S	
	100					L	
						S	
	110					L	
						S	
	120					L	
						S	
	130					L	
						S	
	140					L	
						S	
	150					L	
						S	
	160					L	
						S	
	170					L	
						S	

Purpose of Dive:	Supervisor (sign)	Chartman (sign)
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DCIEM DIVE RECORD CHART IN FEET

DCIEM DIVING MANUAL

DIVER	Rank	Tender		Rank	Date		
DIVER	Rank	Tender		Rank	Table Used		
SUPERVISOR	Rank	Schedule Used		O2%	Depth in MSW	Bottom Time	
Left surface (Clock Time)	Left bottom		Max Time to 1st Stop	Reached surface (Clock Time)			
Total decomp. time	Total time of dive		Repet Group	CHARTMAN (Print)		Rank	
REMARKS	STOPS IN METERS	STAND AIR TABLE	Decompression Time		EMERG AIR	Event Time	
			water	chamber		water	chamber
	3					L	
						S	
	6					L	
						S	
	9					L	
						S	
	12					L	
						S	
	15					L	
						S	
	18					L	
						S	
	21					L	
						S	
	24					L	
						S	
	27					L	
						S	
	30					L	
						S	
	33					L	
						S	
	36					L	
						S	
	39					L	
						S	
	42					L	
						S	
	45					L	
						S	
	48					L	
						S	
	51					L	
						S	
Purpose of Dive:		Supervisor (sign)			Chartman (sign)		

DCIEM - DIVE RECORD CHART IN METERS

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