I date is away from

ve to find the probduled date of week

y of 82% is not high e of activities on the bability of reaching ent may well accept

Deviation as shown probably accurate the standard deviation.

hange as the variaritical activity paths y times.

d in the example in discrete terms. For

<u>veeks</u>.

been made for the

late

	Estimates			
Activity	Time (Weeks)	Probability		
A	6	0.5		
	10	0.5		
В	3	0.4		
	5	0.6		
С	12	0.6		
	14	0.3		
	L 17	0.1		

The expected times for the activities are:

$$A = (6 \times 0.5) + (10 \times 0.5) = 8$$

$$B = (3 \times 0.4) + (5 \times 0.6) = 4.2$$

$$C = (12 \times 0.6) + (14 \times 0.3) + (17 \times 0.1) = 13.1$$

On the basis of the expected times the critical path is C with a duration of 13.1 weeks. However, numerous other possibilities exist and the probabilities of the various completion times and thus of achieving the schedule date of week 14 can be evaluated as follows:

The A, B route can have four durations, each with an associated probability thus:

A, B route					_
Durations	9	11	13	15	weeks
Probability	0.2	0.3	0.2	0.3	W CCV2

(These values are found by combining the durations and probabilities of Activities A and B. For example Activity A duration of 6 weeks, probability 0.5, can be combined with Activity B duration of 3 weeks, probability 0.4, to give 9 weeks duration and probability of 0.2 ( i.e.  $0.5 \times 0.4$ ).

C route				
Duration	12	14	17	weeks
Probability	0.6	0.3	0.1	WCCKS
,	3.0	U.U	0.1	

The A, B route and the C route alternate as the critical path with varying probabilities as shown in the following table.

TOW.	A, B route						
Alban.			9	11	13	15	Duration
	_		0.2	0.3	0.2	0.3	Probability
	Duration	Probability					1
E:	12	0.6	12	12	13 *	15	
C		i	0.12	0.18	0.12	0.18	
Croute	14	0.3	14	14	14	15	
			0.06	0.09	0.06	0.09	
	17 0.1	17	17	17	17		
		l	0.02	0.03	0.02	0.03	