Summary of Impacts
The proposal will constrain the fishing activity of vessels that use a high percentage of DAS and take a large number of short trips. The impacts will be felt primarily on fleet DAS permits. Sink gillnet vessels will be most affected, though almost all gear types and permit categories will be constrained. The proposal will have little impact on the vessels that used Portland ME as their primary landing port in 1997. Nearly a third of the boats that landed in Gloucester, and about a quarter of the boats that landed in Boston, Hampton/Seabrook, Scituate, and Provincetown will be affected.

This analysis focused on the impacts of charging vessels a minimum of 24 hours on short trips. Another alternative offered is to charge vessels a minimum of 15 hours. Clearly, the impacts of charging vessels a minimum of 15 hours will be less. A quick review shows that there will be almost no impact on gillnet vessels if the minimum is charged to 15 hours, since day gillnet vessels are already subject to a 15 hour minimum.

Discussion
Based on the previous analysis, the proposal will increase the number of DAS charged. The increase can be calculated by increasing the DAS charged for trips over 3 and less than 24 hours in length to the minimum of 24 hours. For some vessels, this would result in exceeding their DAS allocation, so the actual increase must take this into account. Table 13 shows that in 1997, the proposal would have added approximately 4,500 DAS to the boats that fished in the Gulf of Maine, an increase of 16% (without increasing actual fishing activity). The proposal would have added roughly 8,000 DAS to the overall DAS used in fishing year 1997 and 1998. These estimates take into account the fact that for some vessels, the calculated impact is capped by the DAS allocation for that vessel.

	Category					
	Individual DAS	Fleet DAS	Hook Gear	Combin-ation	Large Mesh Fleet DAS	Grand Total
DAS Used	8,699	17,637	651	219	129	27,335
DAS Calculated Using Proposal	8,870	21,677	865	219	173	31,804
% increase	2%	23%	33%	0%	34%	16%

Table 13 – Increase in DAS due to counting DAS as a 24 hour minimum, based on 1997 fishing activity (Gulf of Maine)

	Category					
	Individual DAS	Fleet DAS	Hook Gear	Combin-ation	Large Mesh Fleet DAS	Grand Total
DAS Used	15,980	30,757	1,545	596	585	49,463
DAS Calculated Using Proposal	16,026	37,775	2,214	597	673	57,286
% increase	0%	23%	43%	0%	15%	16%

Table 14 – Increase in DAS due to counting DAS as a 24 hour minimum, based on 1997 fishing activity (all areas)

	Category					
	Individual DAS	Fleet DAS	Hook Gear	Combin-ation	Large Mesh Fleet DAS	Grand Total
DAS Used	15,271	33,945	1,910	1,071	738	52,935
DAS Calculated Using Proposal	15,416	41,222	2,654	1,084	978	61,354
% increase	1%	21%	39%	1%	33%	16%

Table 15 – Increase in DAS due to counting DAS as a 24 hour minimum, based on 1998 fishing activity (all areas)

The analysis assumes that vessel operators will respond to this new restriction by decreasing the number of trips taken, but this is not the only possible reaction. If a fishermen takes some trips that are longer than twenty four hours, he could shorten these trips to stay within the allocated DAS while still taking the same number of trips. In effect, the fisherman compensates for the fact that short trips are charged as a minimum of twenty-four hours by shaving time off his longer trips in order to make the same number of trips. This also results in a reduction in fishing effort from observed levels.

If a vessel usually fishes a series of consecutive short trips, another way to mitigate the impacts of the proposal is by allowing the DAS clock to run when he returns to port on a short trip. For example, a bottom-trawl vessel that takes two 12-hour trips on consecutive days is charged 24 hours under the present system. Under the proposal, that vessel would be charged 48 hours. If the vessel starts his clock on the first day, and then ends it after his second trip on the second day, he will be charged less than 48 hours (the exact amount depends on the time between the start of his first trip and the end of the second trip). This could be repeated until the fisherman has to end a trip in accordance with the requirement that he call out within fourteen days of the start of a trip. The following table (Table 16) compares how the DAS would be counted under the current system, under the proposed rule as intended, and a possible response to the rule.

There is another possible reaction. A fisherman that currently takes trips of less than one day is charged for the actual time spent between call-in and call-out (or, if a day gillnet vessel, a minimum of 15 hours). A vessel that is now going to be charged a minimum of 24 hours for these trips may decide to actually fish the entire twenty-four hours, rather than be charged part of a DAS for sitting at the dock. The most likely fishermen to use this tactic would be those who expect to lose trips under the proposed regulations. Because their DAS usage is already high, these permit holders will want to minimize the impact of the regulation by increasing their time on the water on each trip, to make up for the lost trips. The impacts of this response are difficult to estimate. If a boat is already using most of its DAS, this response will not increase effort as measured either by DAS or by actual time on the water. It just means the effort will be concentrated on a fewer number of trips. A boat that is currently taking a high number of trips but is only using part of its DAS may actually increase its effort and time on the water with this response, resulting in an increase in effective effort. Finally, there are many vessels that will not exceed their DAS allocation even if this proposal is adopted. Those vessels could increase their fishing activity and reduce the overall impacts of the proposed measure.

Changing the way DAS are counted on short trips may also have safety implications. Because a vessel will be charged a full 15 or 24 hours for any trip over 3 hours in length, the operator may decide to stay at sea in worsening weather to make best use of his time.

Action	Day 1	Day 2	Day 3	Day 4
Current regulations				
Start trip/clock	0600	0600	0600	0600
Stop trip/clock	1600	1600	1600	1600
Cumulative hours assessed	12	24	36	48
Proposed regulations				
Start clock/trip	0600	0600	0600	0600
Stop trip/clock	1600	1600	1600	1600
Cumulative hours assessed	24	48	72	96
Possible response to proposed regulations				
Start trip	0600	0600	0600	0600
Start clock	0600		0600	
End Trip	1600	1600	1600	1600
Stop clock		1600		1600
Cumulative hours assessed		36		72

Table 16 – Illustration of the effect of a possible response to the proposed regulation on DAS

PDT Comments

1. This proposal will have some impacts on those vessels that use a large number of DAS on trips that are between 3 and 24 hours in length. For all vessels that used groundfish DAS in 1997, 28% of sink gillnet vessels, 15% of bottom longline vessels, and 11% of bottom trawl vessel would lose trips. 14% of fleet DAS permits, 8% of individual DAS permits, and 2% of hook gear permits would be impacted. The ports that would be most affected are Gloucester, Hampton/Seabrook, Chatham, Boston, and Atlantic City NJ. Sink gillnet vessels would "lose" 13% of their trips, bottom longline vessels would "lose" 11%, and bottom trawl vessels would lose 7% of their trips. The impacts are slightly smaller if estimated based on observed 1998 fishing activity. If the proposal is only applied to vessels fishing in the Gulf of Maine, based on 1997 activity of vessels that fished in the Gulf of Maine, 30% of gillnet vessels would be affected, 16% of bottom trawl vessel, and 10% of bottom longline vessels. 18% of fleet DAS permits, 9% of individual DAS permits, and 3% of hook gear –permits would be affected. The ports most

affected would be Gloucester, Portsmouth, Hampton/Seabrook, Scituate, and Provincetown – will be most affected. For sink gillnet vessels, the number of trips affected is 13%. Bottom trawl vessels would lose 9% of their trips, and bottom longline vessels would lose 6% of their trips based on observed activity in fishing year 1997.

2. The impacts of this proposal are similar to a DAS reduction for those vessels that take a large number of short trips. By increasing the minimum time charged for short trips, some vessels will exceed their DAS allocation if they try to take the same number of trips. A rough estimate is that a DAS reduction corresponding to the percentage of trips lost will have the same impacts. This is because in the analysis, a trip is equated to 24 hours at-sea.

3. Analyzing DAS use for any management measure is complicated because vessels can make multiple trips during one call-in/call-out cycle, up to a maximum of 14 days. The accuracy of DAS as a measure of effort is weakened because vessels subject to the GOM cod trip limit are allowed to have extended trips of up to 14 days in length (50 CFR 648.10(f)(3)(i)). DAS no longer indicates time spent fishing, as the DAS clock can run when a vessel is at the dock. For a vessel that does not exceed the cod trip limit, it's not clear what the benefit is to allowing this activity. The PDT recommends that the regulatory text of 50 CFR 648.10(c)(3) be applied to all multispecies vessels, including those subject to the GOM trip limit. This regulation requires that at the end of a vessel trip, when a vessel returns to port, it must call in and end the trip. The definitions section of the regulations defines the end of a trip as when the vessel returns to port, not when it stops its DAS clock. Vessels should be required to call in at the end of a trip. Alternatively, the regulations could prevent a vessel from being in port if more than three hours have passed since calling in to the DAS program unless the vessel has also called the cod hail line. While not specifically related to the proposed requirement, this regulatory change would facilitate DAS analysis in the future.

4. Future analyses could be improved if a particular DAS cycle could be linked to a trip on a vessel's VTR. Since fishermen are required to record their day and time of departure and return on a VTR, it would be relatively simple to require them to record the DAS call in and call out number on this form. This would provide a way to link these two pieces of information, which would facilitate a more accurate tracking of which trips are in a particular area. Since dealers are required to provide a trip number on the dealer report, all three databases could be linked if one of the DAS numbers was used to identify trips on the dealer logbook. The PDT recommended that the DAS number be recorded on vessel and dealer logbooks by multispecies vessels, although this is not incorporated into the proposed action.

4.1.1.1.2 Status quo area closures and trip limits

Options 1 and 2 retain the same area closures and trip limits as the current management program, as implemented through Framework 31, except that Option 2 has some additional closures. The analysis of current area closures in Framework 31 and in the MSMC report incorporates the combined impacts of trip limits and area closures, as well as other measures implemented in Frameworks 26-31. This analysis (provided below) was based on landings for January – April, 1999 of 685 mt, however, more recent landings data indicate that landings for January – October were 1212 mt. This level of landings is at the low end of the range considered in this analysis, but

does not change the basic conclusions due to uncertainty about discards. Comparative landings data for the past four years are shown graphically in Figure 27.

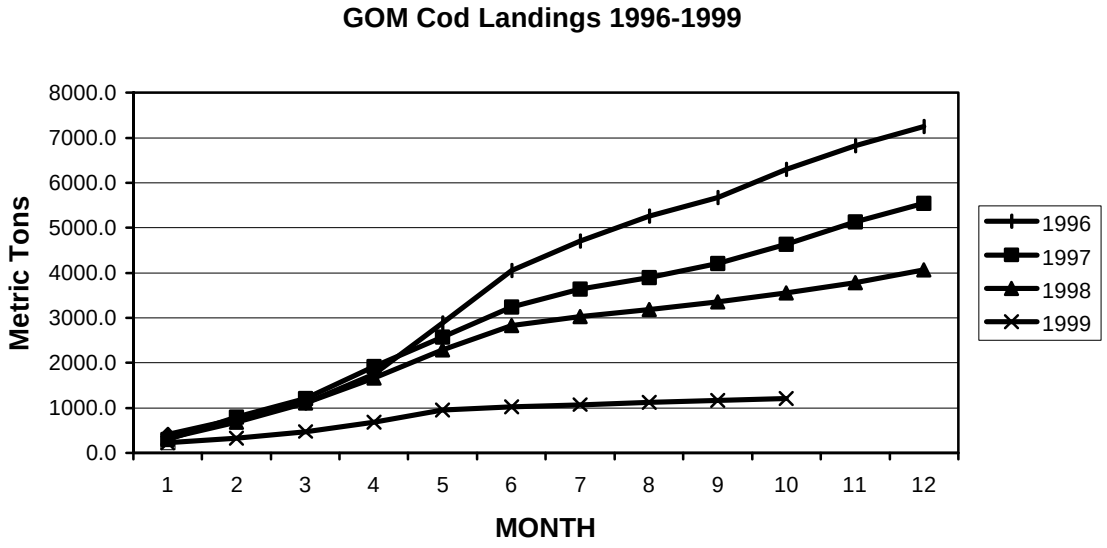

Figure 27 Cumulative Gulf of Maine cod landings by calendar year, 1996 – 1999 (through August, 1999)

Frameworks 26 and 27 implemented several closures of areas with high cod catch in 1999 and dropped the trip limit from 400 lbs. to 200 lbs. to 30 lbs to 100 lbs Framework 31, effective January 5, 2000, raises the trip limit from 100 lbs. to 400 lbs. and adds a closure of 124 and 125 in February. This analysis provides an estimate of the effects of the recent management measures on fishing mortality rate on Gulf of Maine cod. The PDT cautions that the analysis does not take into account discards, which cannot be estimated at this time.

The effectiveness of the trip limits is predicated on fishermen's behavior. Information on discarding behavior under the 400, 200, 30, and 100 pounds per day trip limits that have been implemented consecutively since June 1998 is not available. However, two extreme assumptions about the relative difference in discards under a 200 pound per day trip limit compared to the proposed 400 pounds per day limit provide bounds for a sensitivity analysis about the effect of the rolling closures and the trip limit on fishing mortality in fishing year 1999. This analysis does not address the potential increase of discards that may have occurred at either 400 pounds per day or 200 pounds per day trip limit.

The analysis provided below was done initially to estimate the impact of the increased trip limit proposed in Framework 31. Since it incorporates observed landings through April, 1999 (which are now provided through October), the analysis provides an estimate of the range of possible fishing mortality rates under the current management program (not considering discards). In Framework 31, the analysis discussion noted that if the change from a 200 pounds per day trip limit to 400 pounds per day trip limit only converts discards into landings, that is, the catch is the

same despite a difference in landings, then fishing mortality will not change under the higher limit. No difference in fishing mortality bounds one end of the problem (that is, what is the difference between trip limits of 200 and 400 pounds). If the 200 pounds per day trip limit is perfectly effective, that is, there are no additional discards beyond that generated at the 400 lbs. trip limit and catch is reduced by the lower limit, then the fishing mortality rate will be lowered by lowering the trip limit. The reduced fishing mortality rate bounds the other end of the problem.

Sensitivity analysis of the effect of 200 pounds per day trip limit and 400 pounds per day trip limit for January-April 2000.

Observed landings from January 1999 to April 1999 were 685 mt. Management measures in place were 400 pounds per day trip limit, running clock with no cap, and Framework 25 and 26 closures. Framework 31 utilizes the same measures, but with a more restrictive running clock. Under the proposed system, vessels may only land overages for a partial day at sea (on trips over 24 hours) and may not land more than 4,000 pounds under any circumstances. Vessels on trips under 24 hours may not land more than 400 pounds.

The best estimate of landings in January 2000 through April 2000 with a 400 lbs. trip limit will be the landings from January 1999 through April 1999 when similar measures were in place. To be more accurate, these landings should be modified to accommodate changes in stock size (declining stock sizes should result in lower landings if CPUE and stock size are positively correlated) and implementation of a more restrictive running clock. The running clock should lower landings, but may not have an impact on actual catches because of regulatory discards. However, this analysis assumes no change in CPUE and considers landings for January-April 2000 to be 685 mt under a 400 pounds per day trip limit, equal to the same period in 1999.

The first step is to estimate the effect of the 200 pound per day trip limit assuming that the lower limit results in no discards, compared to the 400 pound per day limit. The MSMC (1998) predicted landings for 1999 of 2058 mt at a 400 pounds per day trip limit and 1300 mt at a 200 pounds per day trip limit. These estimates are slightly higher than those shown in last years' Framework 27 because they do not include the projected 7.4 percent reduction in DAS usage that was incorporated into the Framework 27 analysis. In retrospect, that reduction did not occur. The percent difference in total landings projected by the MSMC between the 200 pounds per day trip limit and 400 pounds per day trip limit is 37% from the 1998 MSMC report. Assuming that this reduction is proportional throughout the year, decreasing the trip limit to 200 pounds per day will drop expected landings in January 2000 through April 2000 to 432 mt, from 685 mt observed. The difference in expected landings will be 253 mt. The question becomes what impact does this have on F in fishing year 1999?

The 253 mt can be compared to expected total landings in 1999. One estimate of landings for 1999 under the proposed 400 pounds per day trip limit can be calculated as follows:

> 685 mt (Jan-April 99, observed) + 267 mt (May 99, observed) + 1827 mt (June-Dec 98, observed) = **2779** mt.

This estimate assumes that landings in June-Dec 99 (under the 30-100 pounds per day trip limit; June, October-November rolling closures, and July- October closure of Cashes ledge, interim

running clock) will be similar to June-Dec 98 (400 pounds per day trip limit; June closure of Cashes and blocks 145-147,152; one month northeast closure, and full running clock). This estimate may be considered pessimistic because it assumes no benefit for the additional Framework 27 measures and for purposes of this analysis may be an upper bound of landings in 1999.

The estimate for total landings with the 200 pounds per day trip limit is:

432 mt (Jan-April 99, from Step 1) + 267 mt (May 99, observed) + 1827 mt (June-Dec 98, observed) = **2526** mt.

These results are presented below as the "pessimistic scenario".

A similar exercise can be done applying the ratio of Landings $_{\text{(January to May 1999)}}$/ Landings $_{\text{(January to May 1998)}}$ to total 1998 landings. This method assumes that the percent reduction in landings that occur from January-May 1999 will occur from June-December 1999. This estimate is **1668** mt under the 400 pounds per day trip limit. This estimate may be considered optimistic because it assumes the same percent reduction in the second half of the year as occurred in the first half, even though most of the closures occur in the first half of the year. Subtracting the 253 mt difference, from Step 1, produces expected landings of **1435** mt under a 200 pounds per day per day trip limit. This is presented below as the "optimistic scenario".

The projected fishing mortality at these assumed landings can be estimated by using 1999 survivors from the Northern Demersal Working Group assessment (August, 1999) assuming 1998 partial recruitment and mean weights for 1999, and iterating F until expected landings are achieved. This uses similar methodology that the MSMC has used to estimate projected F with the exception that this calculation is deterministic and does not incorporate uncertainty in terminal year population estimates. Results are shown in Table 17.

	Pessimistic scenario		Optimistic scenario	
Trip limit	**Landings**	**Expected F**	**Landings**	**Expected F**
200 lbs.	2,526 mts.	0.35	1,435 mts.	0.19
400 lbs.	2,779 mts.	0.39	1,668 mts.	0.22

Table 17 Results of sensitivity analysis on impact of 200 pounds per day and 400 pounds per day trip limit on F in fishing year 1999.

The analysis suggests that under a range of assumptions about potential discards at the lower limit and either a 200 lbs or trip limit to 400 pounds per day in January-April 2000 landings are likely to be between 1,435 and 2,779 metric tons. These landings will result in a fishing mortality that likely to be between 0.39 to 0.19, substantially lower than the 1998 F. Averaging the pessimistic and optimistic scenarios results in landings of 2,102 and a fishing mortality rate of 0.29.

This analysis suggests that Fishing mortality in fishing year 1999 may be near the F_{max} target under Frameworks 26, 27 and proposed Framework 31. The fact that landings through

October, 1999 suggest the full-year landings will be at the lowest end of the range in this analysis doesn't change the conclusions about the expected fishing mortality rate in 1999 because of uncertainty about discards. The fishing mortality rate may be underestimated if substantial discarding occurred (that is, catch remains high despite a drop in landings). This analysis also does not incorporate uncertainty in the terminal year population estimates going into the projection.

4.1.1.1.3 Option 1 Layover days and net tag limit May, June, July, Nov. and Dec.

The Council rejected Option 1. The MSMC proposed this measure as a way to slow the "pulse" of fishing effort following the re-opening of the rolling closures. In 1999, it was during this period that fishermen reported extremely high catch rates and discards of cod. Analysis of 1999 effort patterns during the eight weeks following a re-opening support the contention that there is a pulse of effort and landings during the first month. Table 18 shows that in terms of numbers of trips, the first four weeks has significantly more trips that the second four weeks following a re-opening. By gear category, the greatest change is in the number of otter trawl trips.

BLOCKS	First 4 weeks (# trips)	Second 4 weeks (# trips)	% decline
121-125	693	501	-27%
129-133, 136-138	895	607	-32%
139, 140, 142-147	185	120	-35%

Table 18 Number of trips in re-opened rolling closure areas in 1999, first and second four weeks.

While trip length appears to remain constant throughout the eight-week period, the average trip length in the nearshore blocks of each closure area (124, 125, 132, 133, and 134) is, understandably, significantly lower than the offshore component, and averages between 0.5 and 0.7 days. If the layover provision requires a minimum of a 24-hour layover, then this proposal will have the effect of slowing the pulse of effort on inshore vessels by limiting their ability to make frequent short trips and landing the per day limit of cod. The landings by these vessels could be reduced by as much as 50 percent during those months, if the vessel otherwise would fish every day without the layover constraint. However, some of those fish would be caught in subsequent months, reducing the impact on fishing mortality to something less than 50 percent.

Table 19 shows the percent change in landings of cod and all species during between the first four weeks and the second four weeks following the re-opening of the GOM rolling closures in 1999. Nearly all gears showed significant reductions in landings of cod and all species during the second eight weeks. The exception being gillnet vessels which showed less significant reductions (and an increase in one case) in all species landed, and also showed an increase in cod landed in one instance. Under this proposal, however, Day Gillnet vessels would not be subject to layover days, but to a limit of 40 stand-up nets (80 net tags) compared to the regular limitation of 80 nets. While a 50 percent reduction in allowed nets during this period would reduce the catch by Day Gillnet vessels, the relative impact to the regular number of nets and to the effect of layover days on other gear sectors cannot be quantified.

Percent Change	Otter Trawl	Gillnet	Hook	All

Blocks	Cod	All	Cod	All	Cod	All	
121-125	-53	-40	-69	-9	-88	-79	-39
129-133, 136-138	-58	-58	-51	+129	-74	-63	-43
139, 140, 142-147	-22	-43	+92	-25	NA	NA	-42

Table 19 Percent change in landings (VTR data) between the first four weeks and the second four weeks following the re-opening of GOM rolling closures in 1999, by gear and by cod and all species.

Table 20, Table 21, and Table 22 show the multispecies landings for the eight consecutive weeks following the re-opening of the rolling closures in 1999, by gear and species. These data suggest that a layover day provision would reduce the pulse fishing, and therefore landings, during the period immediately following the re-opening.

		Week Number								Total
GEAR		**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**LBS**
OTTER TRAWL	Cod	6,091	31,568	51,038	49,522	18,893	10,586	25,980	9,038	202,716
	Dab	4,379	33,138	51,248	26,978	19,809	14,700	18,788	10,516	179,556
	Grey Sole	837	8,658	24,491	15,720	7,028	7,584	18,921	8,185	91,424
	Haddock		82	649	321	285	234	14,922	2,398	18,891
	Pollock	75	1,206	6,545	11,472	862	2,632	6,028	4,150	32,970
	Redfish	3	63	1,076	13,724	84	67	2,293	1,856	19,166
	White Hake		25	500		700	3,282	1,245	100	5,852
	Windowpane Flounder		82	29	37	20	30			198
	Winter Flounder	1,147	6,661	6,186	2,580	1,801	2,843	2,060	1,107	24,385
	Yellowtail Flounder	8,169	42,633	34,705	19,247	13,635	19,124	12,867	10,102	160,482
OTTER TRAWL Total		**20,701**	**124,116**	**176,467**	**139,601**	**63,117**	**61,082**	**103,104**	**47,452**	**735,640**
GILLNET	Cod	465	16,091	11,269	6,930	6,106	1,607	1,668	1,332	45,468
	Dab		7,944	6,276	4,707	3,243	2,249	2,939	1,338	28,696
	Grey Sole		303	369	1,056	1,613	2,352	3,588	1,485	10,766
	Haddock		265	65	193	181	49	38	10	801
	Pollock	60	4,521	331	309	1,113	177	440	46	6,997
	Redfish		345			130				475
	White Hake		9			24		4		37
	Windowpane Flounder							5	30	35
	Winter Flounder		15,836	13,326	9,181	6,518	8,465	5,221	4,392	62,939
	Yellowtail Flounder		18,988	21,752	20,593	15,381	15,046	12,663	12,425	116,848
GILLNET Total		**525**	**64,302**	**53,388**	**42,969**	**34,309**	**29,945**	**26,566**	**21,058**	**273,062**
HOOK	Cod	660	2,475	500	2,816	256	358	90	83	7,238
	Haddock	305	239	865	348	141	387	305	70	2,660
	Pollock	12	40	60	21		10	45		188
HOOK Total		**977**	**2,754**	**1,425**	**3,185**	**397**	**755**	**440**	**153**	**10,086**
OTHER	Cod	1,035	2,003	2,238	2,952	2,378	262	86	74	11,028
	Dab				579	250				829
	Grey Sole				50	200				250
	Pollock	102	51	156	233	43				585
	Winter Flounder				214	15				229
	Yellowtail Flounder				123	25				148
OTHER Total		**1,137**	**2,054**	**2,394**	**4,151**	**2,911**	**262**	**86**	**74**	**13,069**
Grand Total		**23,340**	**193,226**	**233,674**	**189,906**	**100,734**	**92,044**	**130,196**	**68,737**	**1,031,857**

Source: VTR Database (12/6/99)

Table 20 Multispecies landings for the eight consecutive weeks following May 1, 1999 for Blocks 121-125

		Week Number								Total
GEAR		**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**LBS**
OTTER TRAWL	Cod	8,446	6,799	6,857	6,441	2,952	2,508	3,956	2,391	40,350
	Dab	101,998	87,646	85,551	91,498	42,961	35,363	48,876	22,008	515,901
	Grey Sole	48,144	48,740	59,874	56,052	17,379	22,021	30,767	23,566	306,543
	Haddock	1,400	1,522	2,880	1,957	8,119	309	3,183	185	19,555
	Pollock	1,632	4,904	4,633	9,326	2,207	946	6,025	2,523	32,196
	Redfish	387	770	2,037	4,668	984	212	1,072	408	10,538
	White Hake	2,012	1,828	4,258	9,528	2,666	2,051	6,298	2,482	31,123
	Windowpane Flounder		65							65
	Winter Flounder	1,490	711	824	464	470	167	291	164	4,581
	Yellowtail Flounder	29,326	18,246	12,103	10,239	4,809	4,195	4,016	2,503	85,437
OTTER TRAWLTotal		**194,835**	**171,231**	**179,017**	**190,173**	**82,547**	**67,772**	**104,484**	**56,230**	**1,046,289**
GILLNET	Cod	673	1,434	1,470	1,857	3,259	1,567	1,861	1,535	13,656
	Dab	872	2,770	1,446	1,163	7,593	1,020	547	999	16,410
	Grey Sole	425	1,216	1,240	807	264	457	301	402	5,112
	Haddock	487	819	585	1,494	1,274	794	1,313	1,087	7,853
	Pollock	1,004	3,176	7,605	17,368	21,064	10,290	32,552	27,207	120,266
	Redfish	1	100	127	76	100	200	20	700	1,324
	White Hake		175		1,020	4,800	759	6,469	6,615	19,838
	Winter Flounder	427	952	707	543	471	598	294	184	4,176
	Yellowtail Flounder	577	3,424	3,714	1,221	566	1,511	318	932	12,263
GILLNET Total		**4,466**	**14,066**	**16,894**	**25,549**	**39,391**	**17,196**	**43,675**	**39,661**	**200,898**
HOOK	Cod	124	121	128	90	120				583
	Haddock	73	57	1,202	400	700				2,432
	Pollock	7	14	300	500	300				1,121
	Redfish	2								2
HOOK Total		**206**	**192**	**1,630**	**990**	**1,120**				**4,138**
OTHER	Cod	400	194	303	472	589	675	921	119	3,673
	Dab						38			38
	Grey Sole						212	3		215
	Haddock		59	3		167	12	1,500	2	1,743
	Pollock		15	76	543	291	24	3,520		4,469
	Redfish							38		38
	Yellowtail Flounder						87			87
OTHER Total		**400**	**268**	**382**	**1,015**	**1,047**	**1,048**	**5,982**	**121**	**10,263**
Grand Total		**199,907**	**185,757**	**197,923**	**217,727**	**124,105**	**86,016**	**154,141**	**96,012**	**1,261,588**

Source: VTR Database (12/6/99)

Table 21 Multispecies landings for the eight consecutive weeks following June 1, 1999 for Blocks 129-133, 136-138

		Fishing Week Number								Total
GEAR		**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**LBS**
OTTER TRAWL	Cod	935	2,034	1,825	1,252	1,207	1,750	1,265	474	10,742
	Dab	13,584	30,534	34,041	19,142	16,026	13,380	17,031	11,001	154,739
	Grey Sole	4,041	8,733	20,022	15,715	9,315	8,221	10,068	7,233	83,348
	Haddock	6,751	4,535	460	55	76	60	444	5	12,386
	Pollock	1,164	5,352	2,514	2,171	3,715	915	789	459	17,079
	Redfish	21	2,228	652	287	308	55	476	20	4,047
	White Hake	1,485	4,549	2,875	2,810	3,235	530	480	775	16,739
	Windowpane Flounder		442	746	322	305	50	100		1,965
	Winter Flounder	9	101	831	53	73	66	40	15	1,188
	Yellowtail Flounder	287	828	470	208	90	220	74	10	2,187
OTTER TRAWLTotal		**28,277**	**59,336**	**64,436**	**42,015**	**34,350**	**25,247**	**30,767**	**19,992**	**304,420**
GILLNET	Cod	155	525	422	495	510	640	758	1,152	4,657
	Dab	50	31	28	15	31	15	1	19	190
	Grey Sole	70	1	10	10	25	3		18	137
	Haddock	715	225	473	639	230		95	5	2,382
	Pollock	145	9,985	5,171	3,613	7,940	2,735	2,230	2,917	34,736
	Redfish		50	75	107	85	65	25	80	487
	White Hake	35	7,405	2,145	1,685	2,165	1,535	1,150	1,155	17,275
	Windowpane Flounder	10	15	36	6	15				82
	Winter Flounder	35	21	18	45	20	30	10		179
	Yellowtail Flounder	25	24	6	10					65
GILLNET Total		**1,240**	**18,282**	**8,384**	**6,625**	**11,021**	**5,023**	**4,269**	**5,346**	**60,190**
OTHER	Cod		99	99	78	11		158	81	526
	Dab			1,861						1,861
	Grey Sole			211						211
	Haddock	2		11				8	7	28
	Pollock		3,568	346		14		110	30	4,068
	Redfish			134				2		136
	White Hake								1	1
OTHER Total		**2**	**3,667**	**2,662**	**78**	**25**		**278**	**119**	**6,831**
Grand Total		**29,519**	**81,285**	**75,482**	**48,718**	**45,396**	**30,270**	**35,314**	**25,457**	**371,441**

Source: VTR Database (12/6/99)

Table 22 Multispecies landings for the eight consecutive weeks following July 1, 1999 for Blocks 139, 140, 142-147