

KIC 007976136

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
007976136-01	OBS	6945.01	0.655049	131.814383	59.3	4.828	11.4	11.4	1.01	6063	0.85	5281.21
007976136-02	OBS	No	8.523290	139.211373	2333.8	2.215	14.4	12.7	1.01	6063	8.64	172.57
007976136-03	OBS	No	2.638898	131.941117	357.0	1.273	13.5	4.4	1.01	6063	2.09	823.89
007976136-04	OBS	No	8.524035	139.705953	552.2	1.544	11.8	3.3	1.01	6063	2.62	172.55
007976136-05	OBS	No	8.516783	139.984758	1079.9	1.725	11.5	9.4	1.01	6063	3.61	172.74
007976136-06	OBS	No	18.860961	136.995460	2903.2	1.578	11.8	12.0	1.01	6063	8.65	59.84
007976136-07	OBS	No	6.310436	134.964120	1042.8	2.500	8.2	-1.0	1.01	6063	3.26	257.64

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007976136-01	OBS	FP	0.00	0	1	1	0	MOD_SEC_ALT—CENT_RESOLVED_OFFSET
007976136-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_RESOLVED_OFFSET
007976136-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—CENT_RESOLVED_OFFSET
007976136-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_RESOLVED_OFFSET
007976136-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_TER_ALT—MOD_POS_ALT—CENT_RESOLVED_OFFSET
007976136-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—CENT_RESOLVED_OFFSET
007976136-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

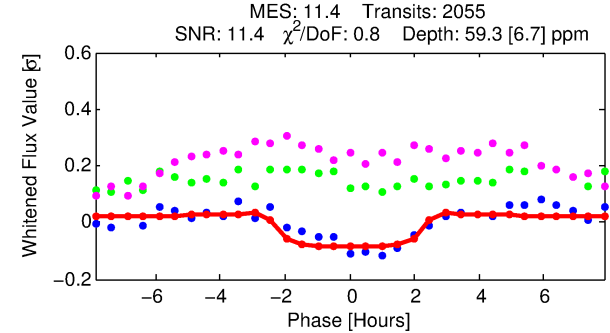
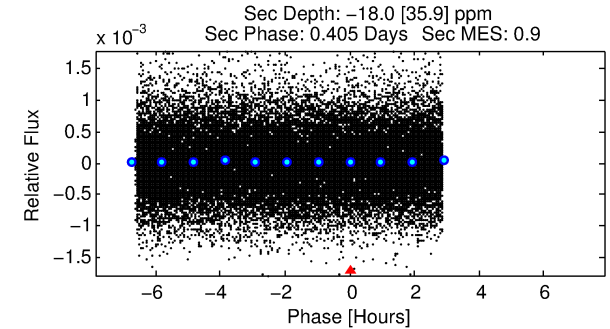
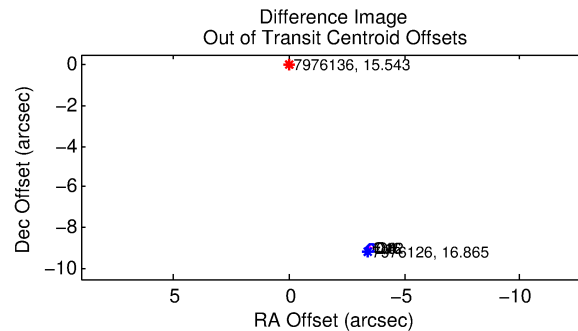
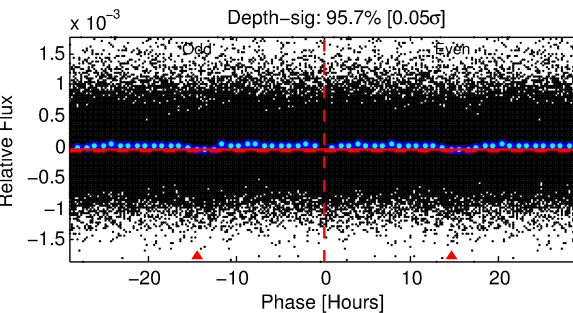
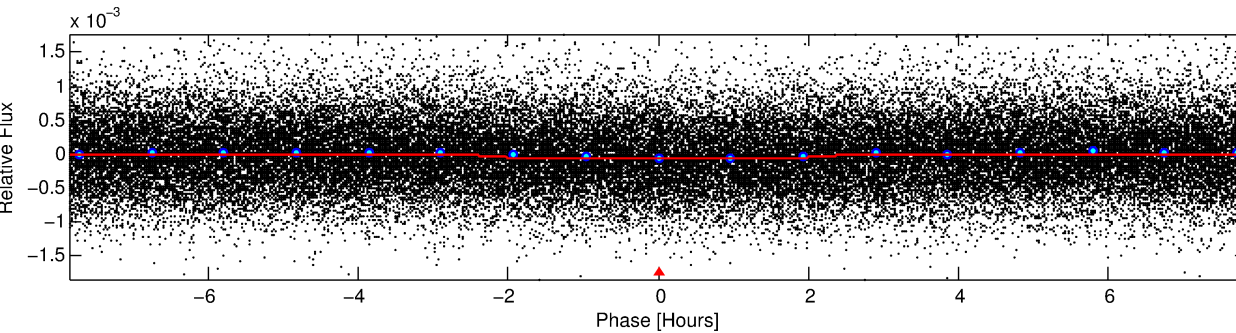
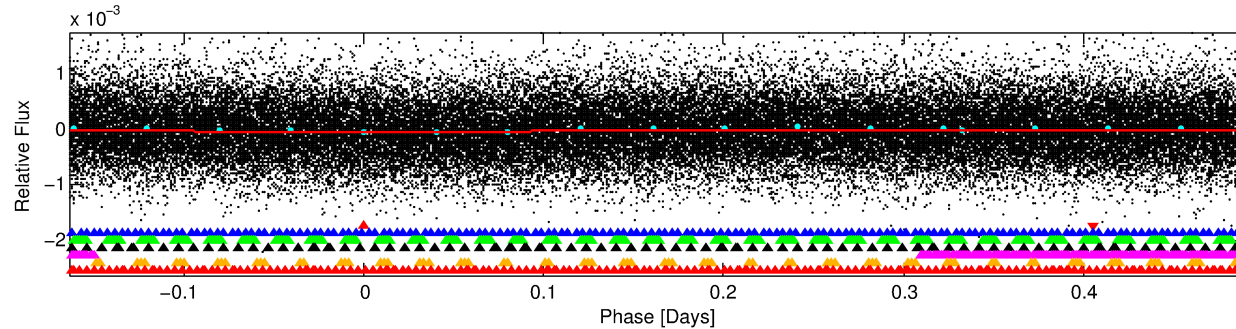
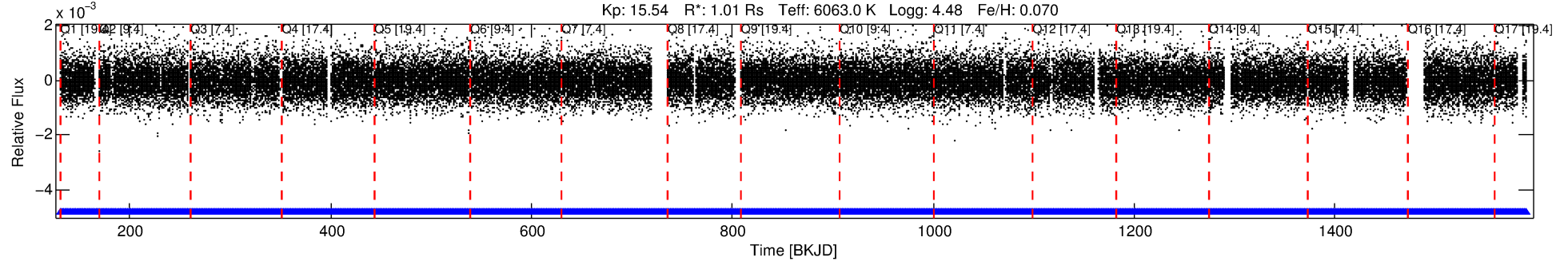
Ephemeris Match Information For 007976136-01

No Significant Match Found

DV One-Page Summary

KIC: 7976136 Candidate: 1 of 7 Period: 0.655 d
KOI: K06945.01 Corr: 0.861

Kp: 15.54 R*: 1.01 Rs Teff: 6063.0 K Logg: 4.48 Fe/H: 0.070



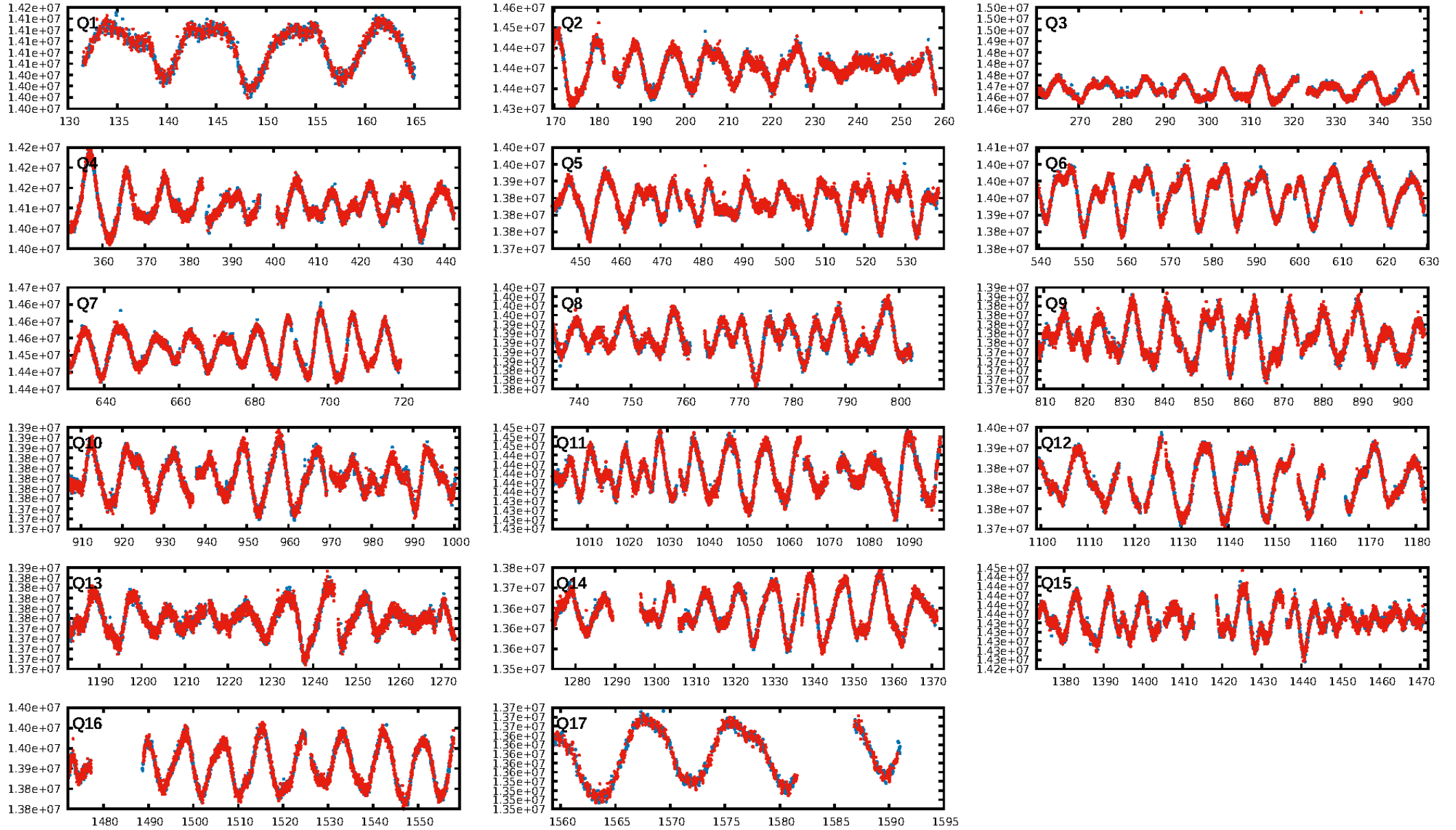
DV Fit Results:

Period = 0.65505 [0.00001] d
Epoch = 131.8144 [0.0038] BKJD
Rp/R* = 0.0077 [0.0057]
a/R* = 1.10 [0.70]
b = 0.77 [1.91]
Seff = 5281.21 [1988.30]
Teff = 2174 [205] K
Rp = 0.85 [0.68] Re
a = 0.0153 [0.0037] AU
Ag = N/A
Teffp = N/A

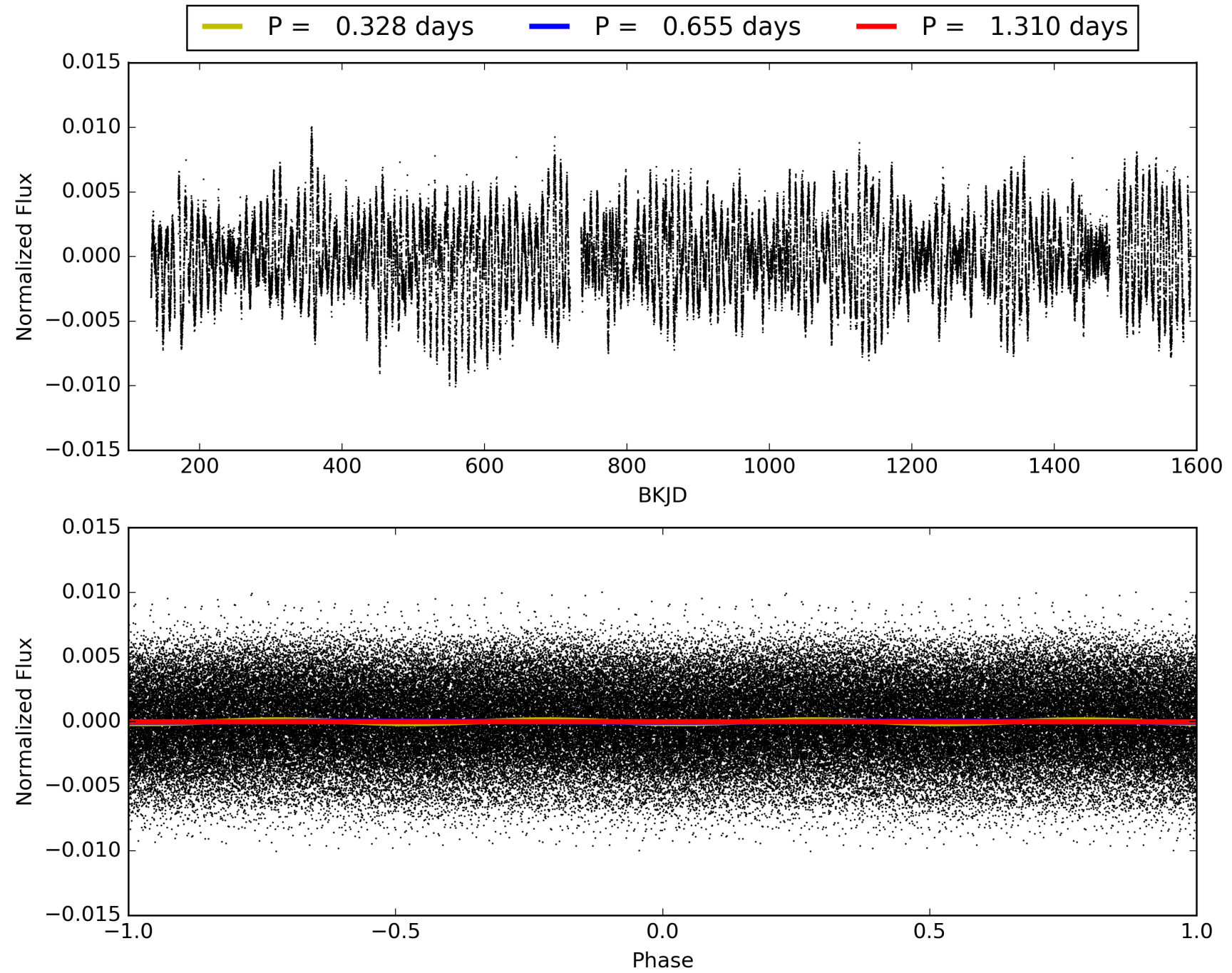
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [9.54σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1963/1963]
GhostDiagnostic-chr: 0.68
Centroid-sig: 80.4%
Centroid-so: 0.393 arcsec [0.29σ]
OotOffset-rm: 9.666 arcsec [141.30σ]
KicOffset-rm: 9.748 arcsec [143.15σ]
OotOffset-st: 0/0/4/0 [4]
KicOffset-st: 0/0/4/0 [4]
DiffImageQuality-fgm: 1.00 [4/4]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 007976136-01, PDC Light Curves

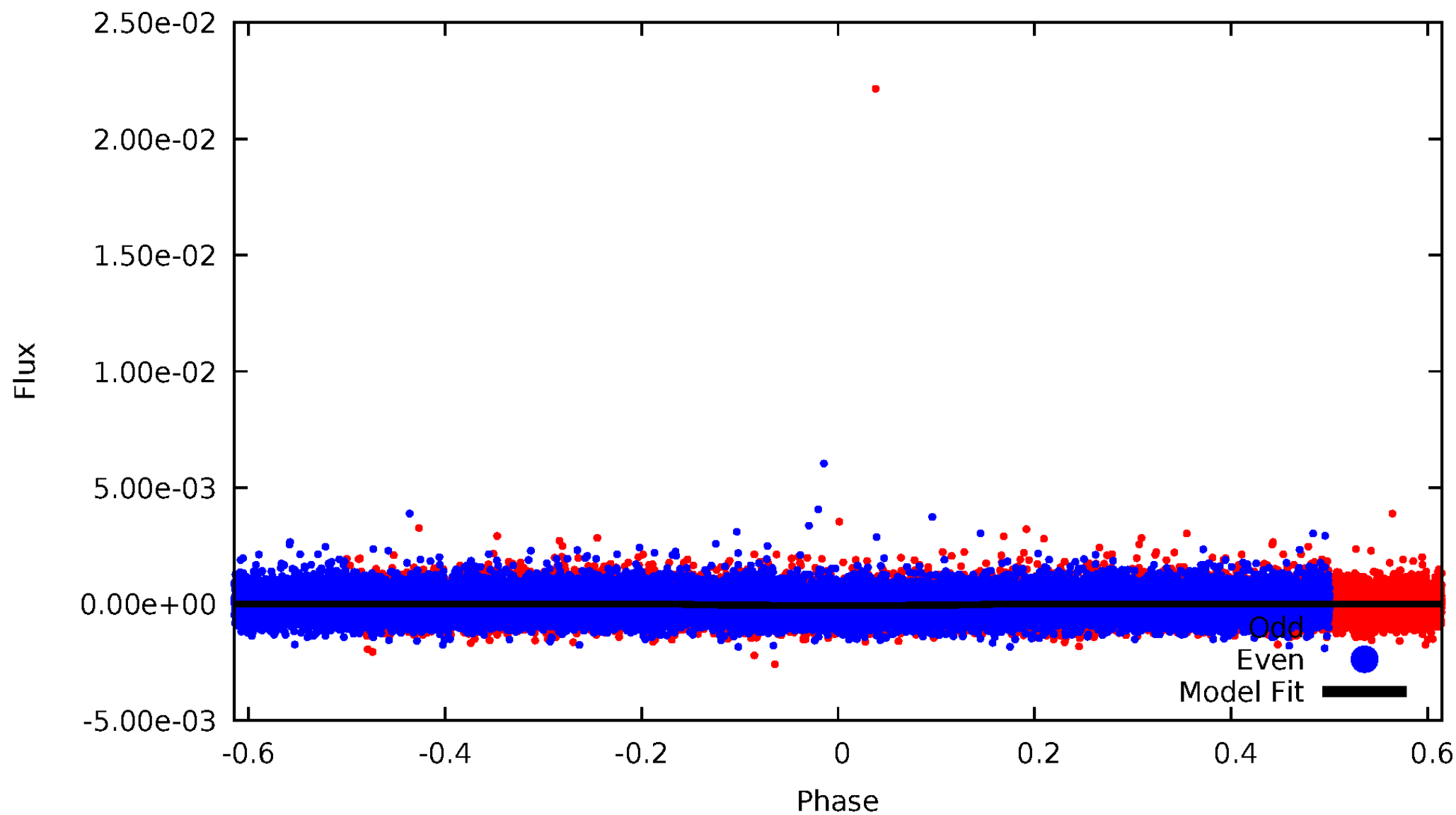


TCE 007976136-01



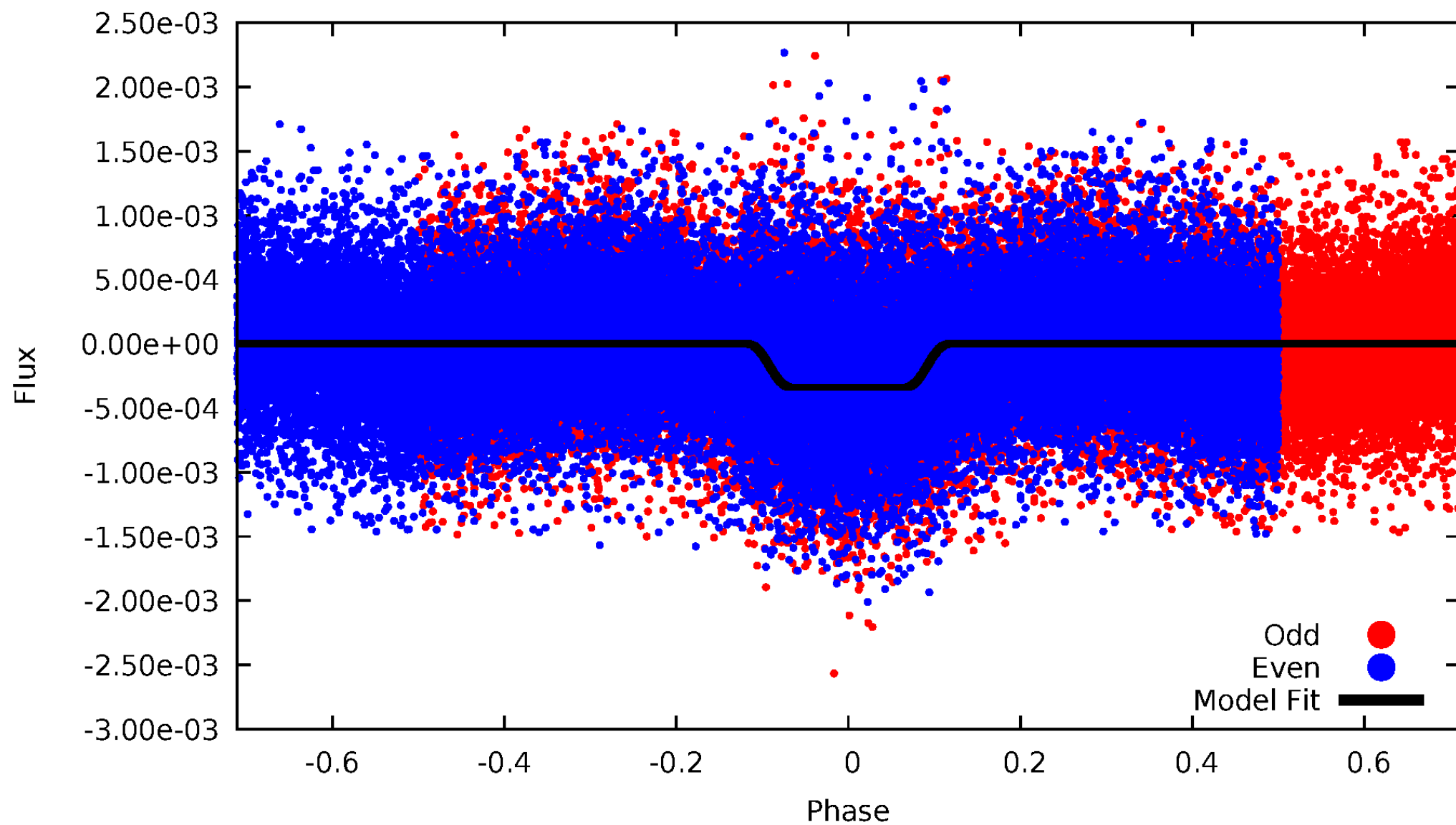
DV Odd/Even

TCE 007976136-01



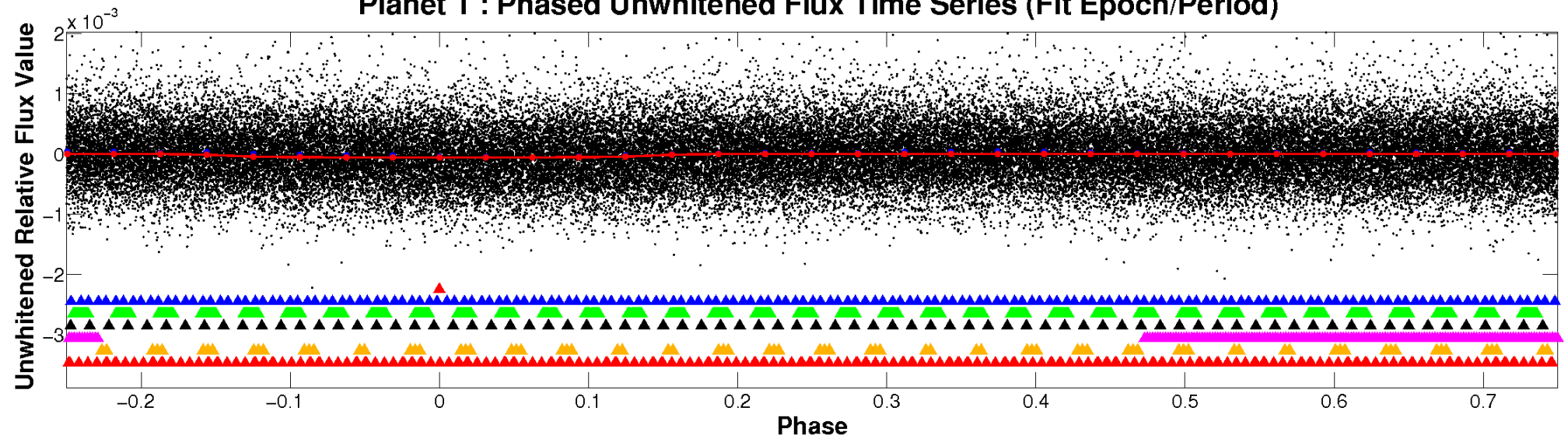
ALT Odd/Even

TCE 007976136-01

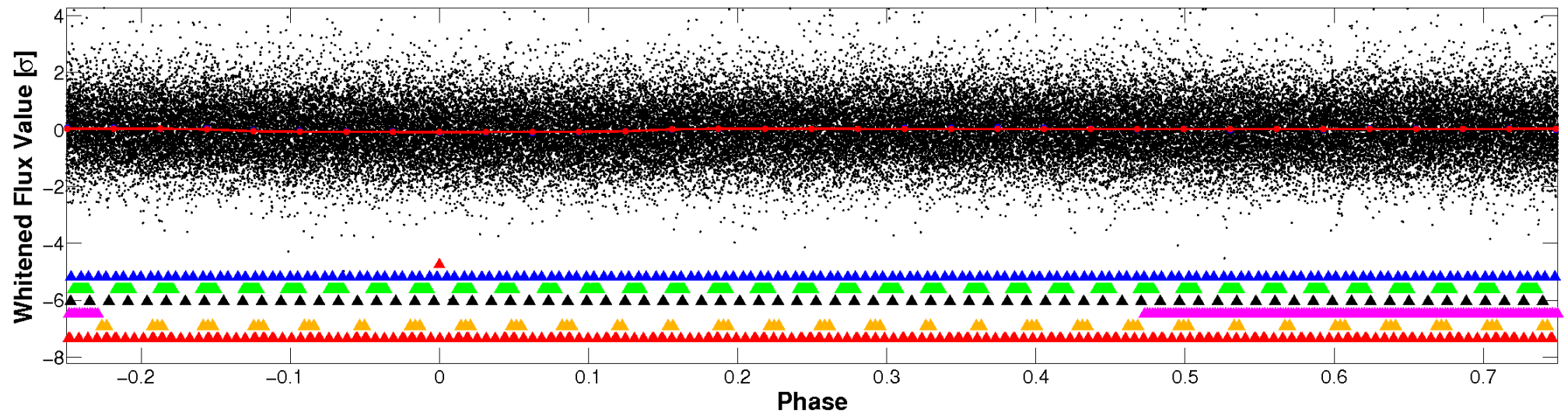


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

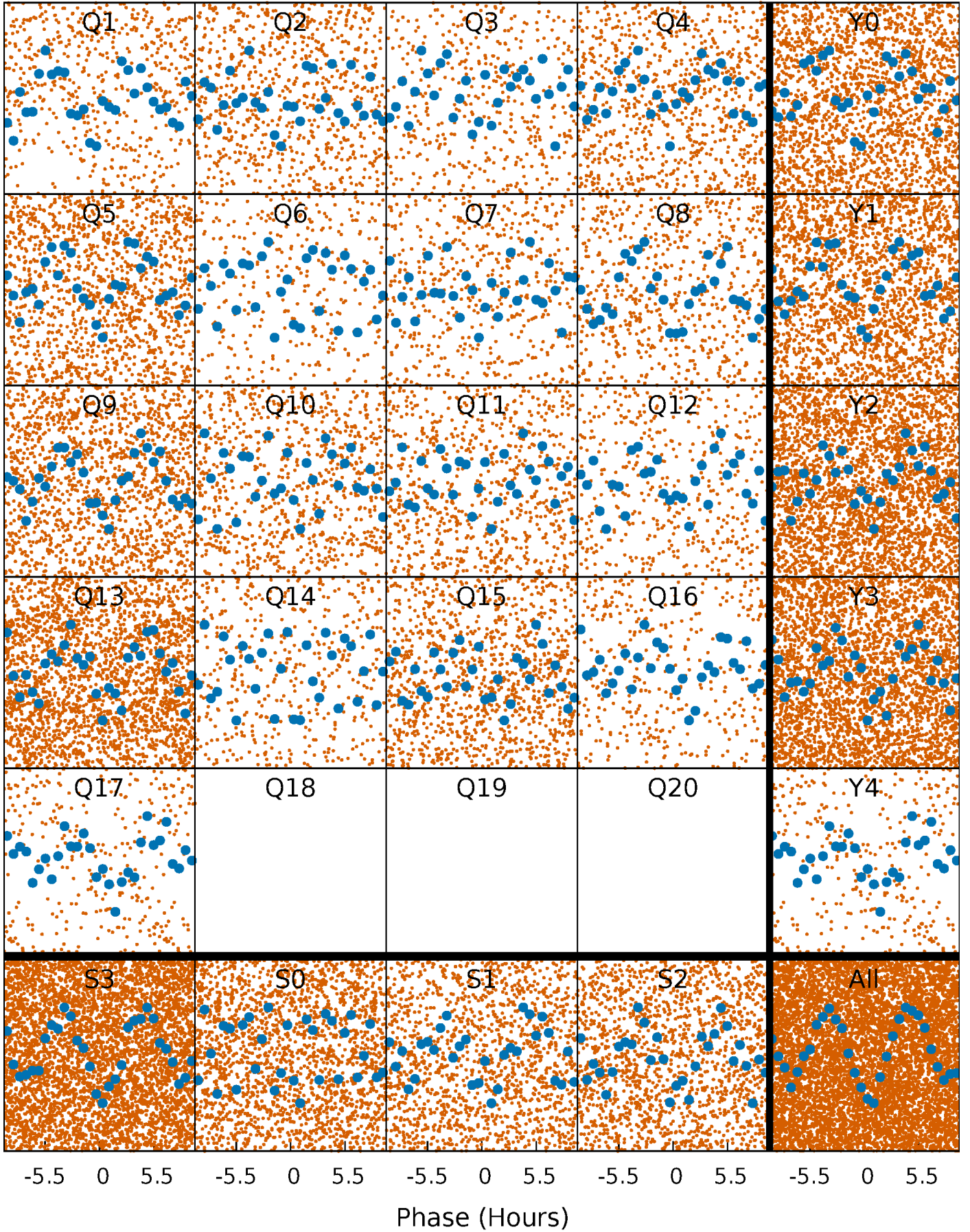


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



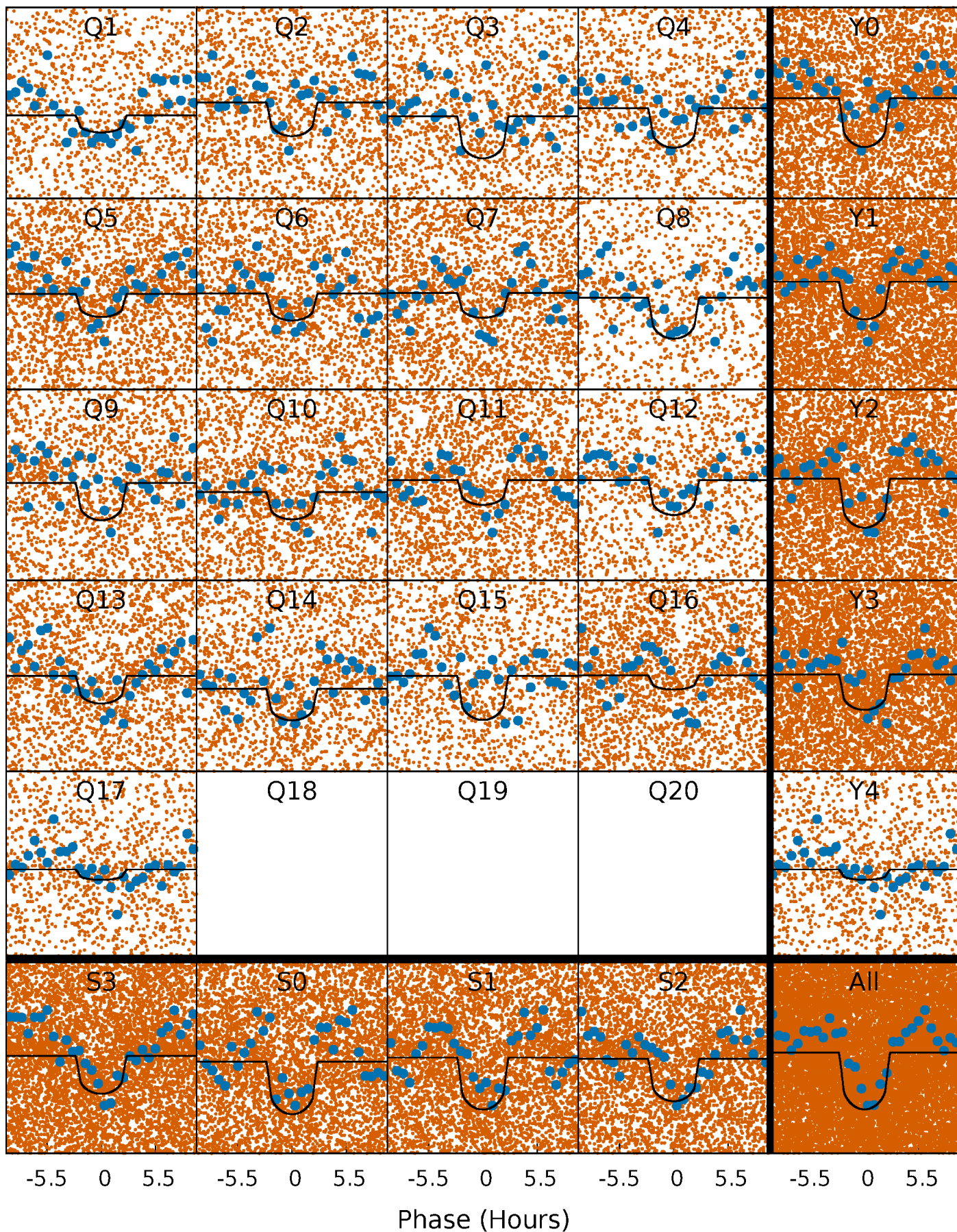
PDC Quarter-Phased Transit Curves

TCE 007976136-01 P= 0.655049 Days $T_0=131.814383$ (BKJD)



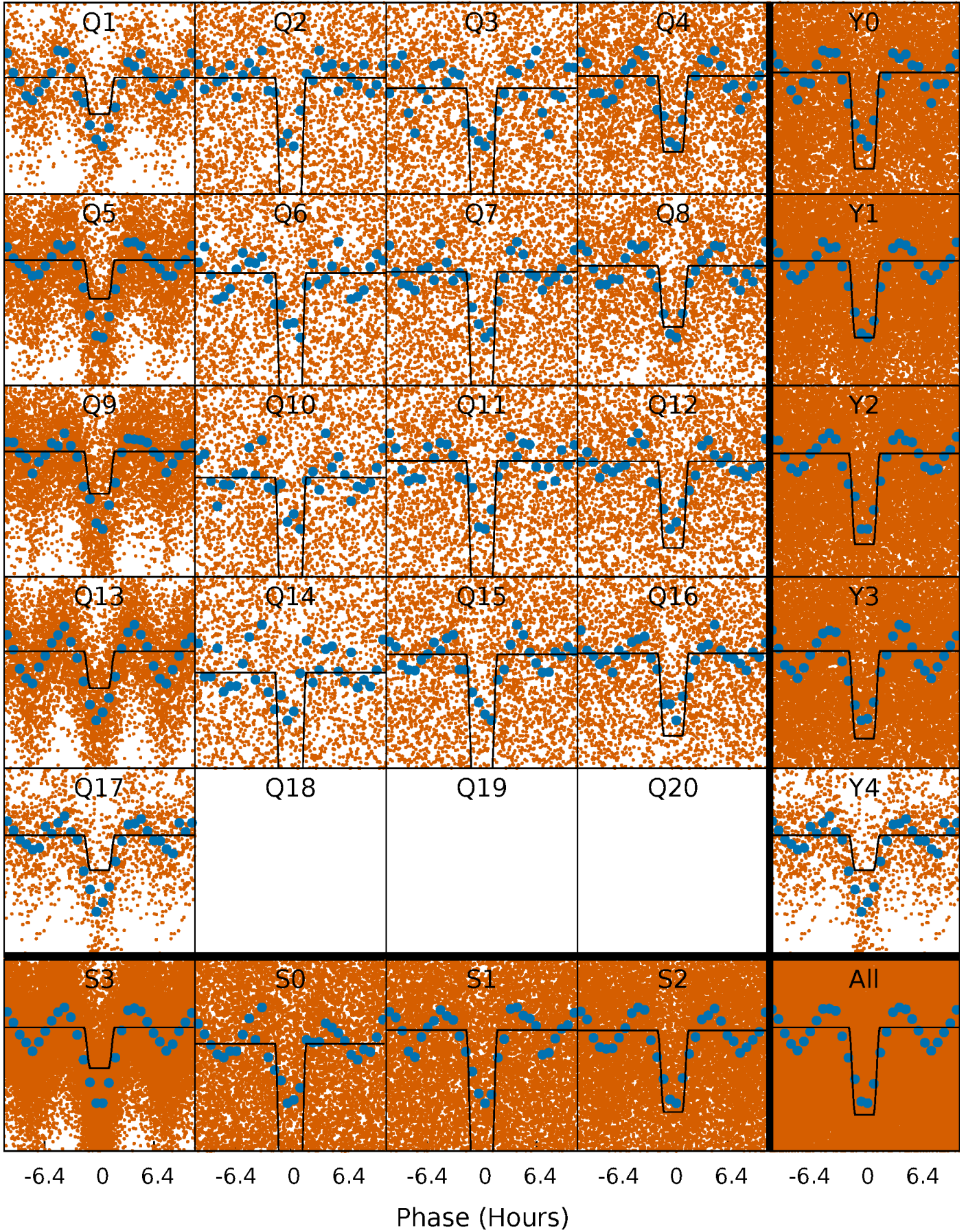
DV Quarter-Phased Transit Curves

TCE 007976136-01 P= 0.655049 Days $T_0=131.814383$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

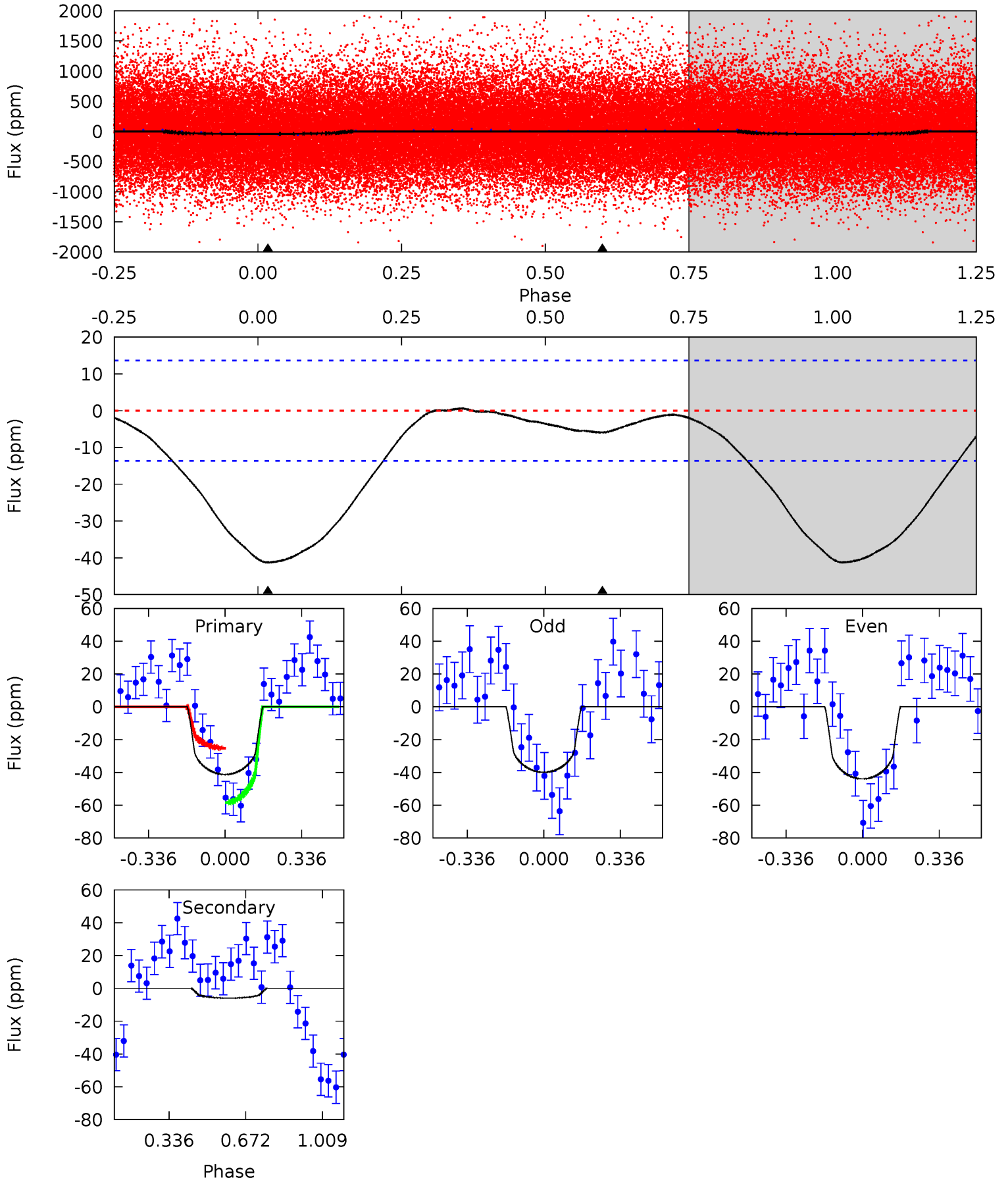
TCE 007976136-01 P= 0.655096 Days $T_0=131.780605$ (BKJD)



DV Model-Shift Uniqueness Test

007976136-01, P = 0.655049 Days, E = 131.159334 Days

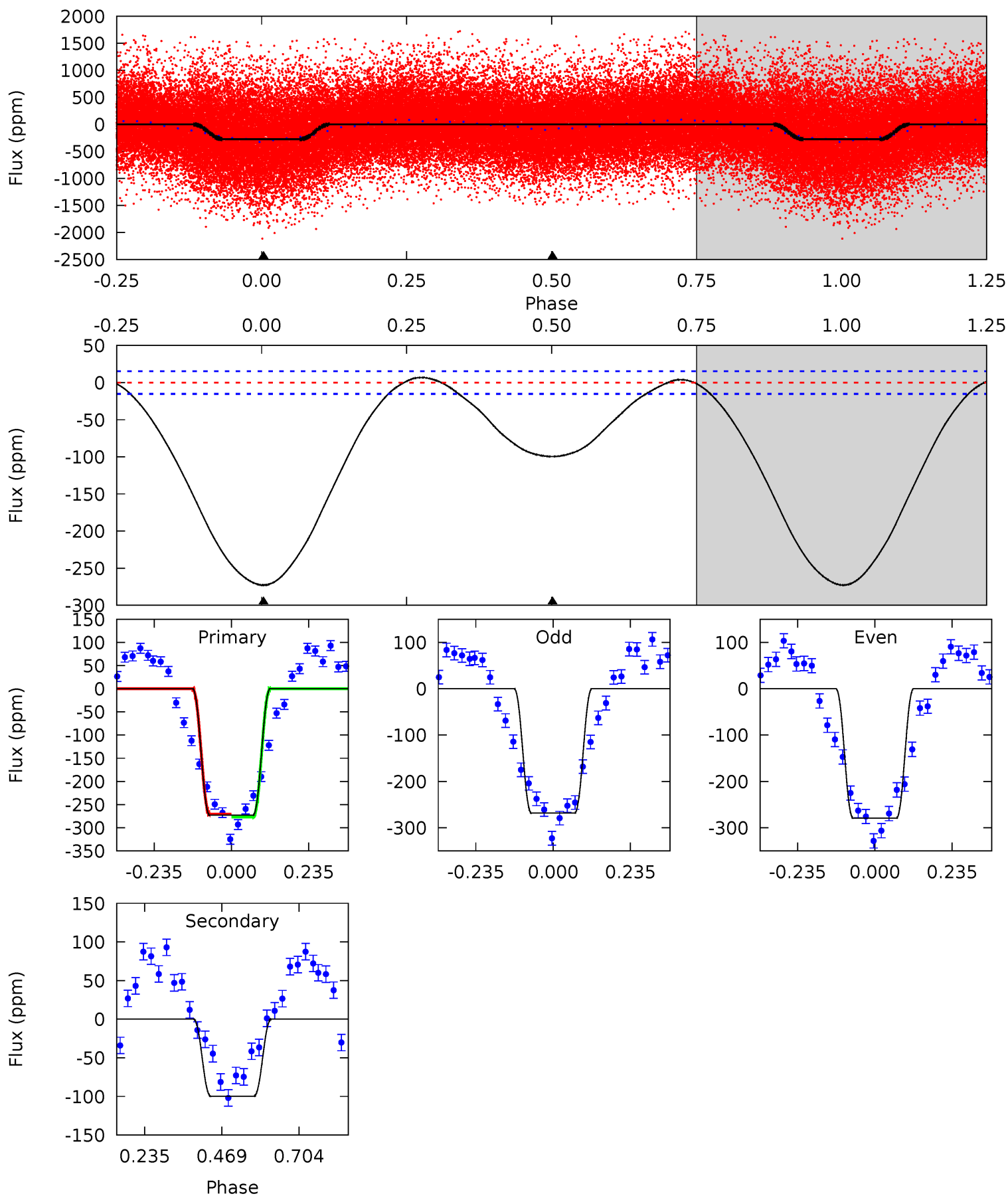
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.0	1.88	0	0	4.30	0.96	0.55	13.0	13.0	1.88	1.88	0.63	1.00	0.01	5.28



Alt Model-Shift Uniqueness Test

007976136-01, P = 0.655096 Days, E = 131.125509 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
78.6	28.7	0	0	4.38	1.19	1.94	78.6	78.6	28.7	28.7	1.59	1.05	0.02	0.92



Stellar Parameters For KIC 007976136

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6063^{+169}_{-211}	$4.476^{+0.048}_{-0.192}$	$0.070^{+0.200}_{-0.350}$	$1.012^{+0.286}_{-0.114}$	$1.117^{+0.120}_{-0.174}$	$1.519^{+0.379}_{-0.737}$
	+3%/-3%	+1%/-4%	+286%/-500%	+28%/-11%	+11%/-16%	+25%/-49%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 007976136-01 / KOI 6945.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-6 ± 3	$1.01^{+0.61}_{-0.60}$	3102^{+205}_{-157}	3226^{+1753}_{-5939}	$0.649^{+3.472}_{-0.443}$
Alt.	-100 ± 3	$2.07^{+0.75}_{-0.62}$	3097^{+228}_{-140}	4572^{+758}_{-569}	$2.944^{+2.938}_{-1.362}$

T_{max} = Theoretical Maximum Planetary Temperature
 T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)
 A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

DV Centroid Data

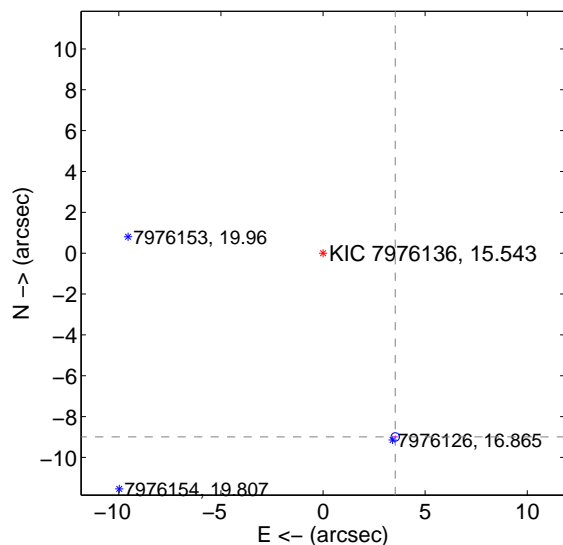
Supplemental centroid analysis for 007976136-01. Kepler magnitude: 15.54. Transit SNR 11.40

There are 4 quarters with good PRF difference image offsets

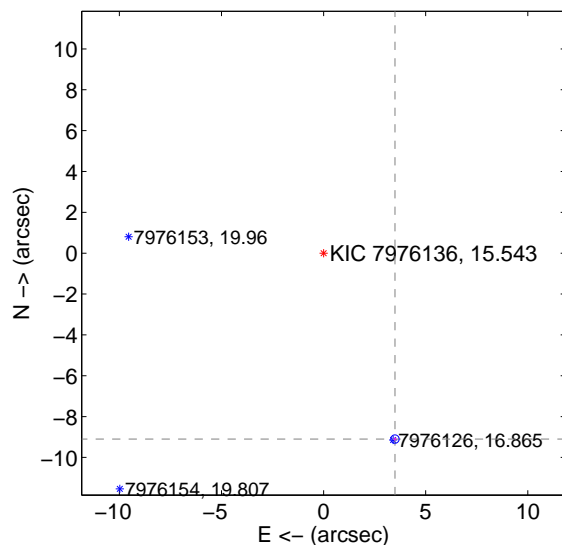
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	9.666 ± 0.068	141.30	-3.536 ± 0.073	-8.995 ± 0.068
PRF-fit source offset from KIC position	9.748 ± 0.068	143.15	-3.493 ± 0.074	-9.100 ± 0.067
photometric centroid source offset	0.39 ± 1.37	0.29	0.20 ± 1.02	-0.34 ± 1.47

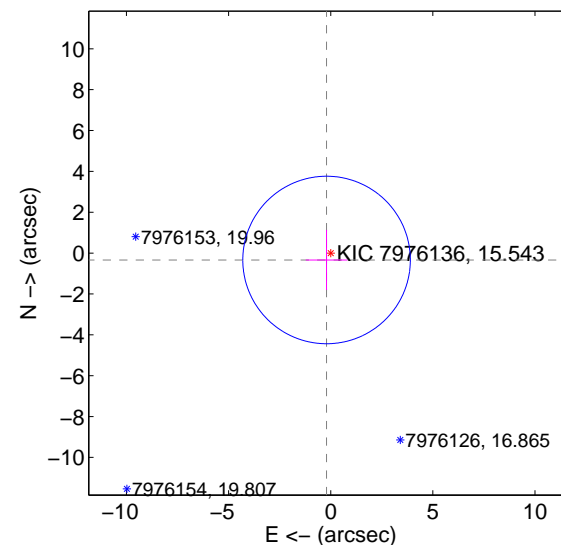
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

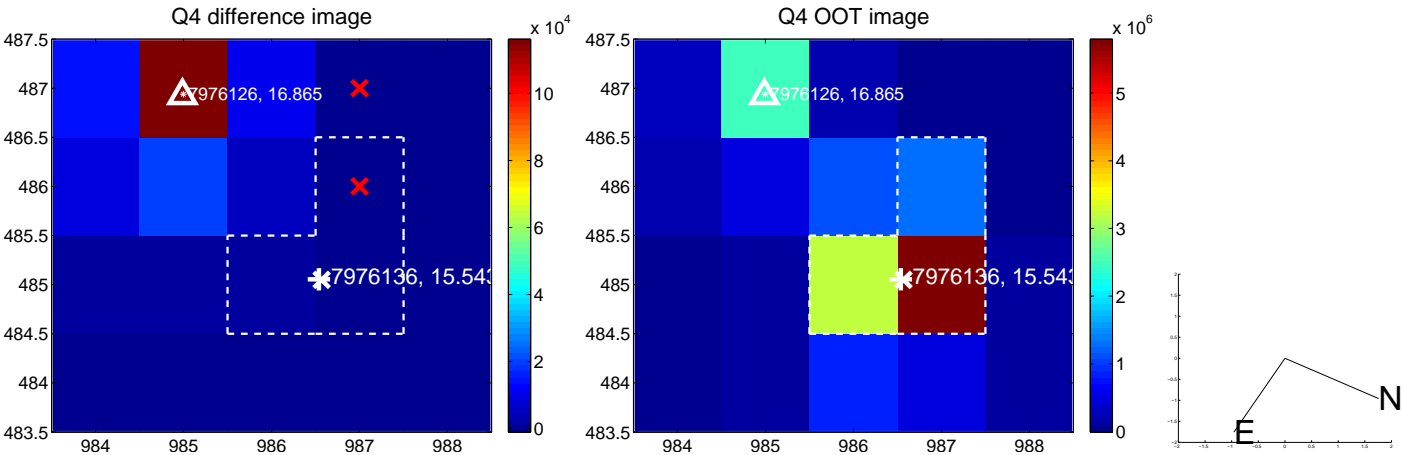
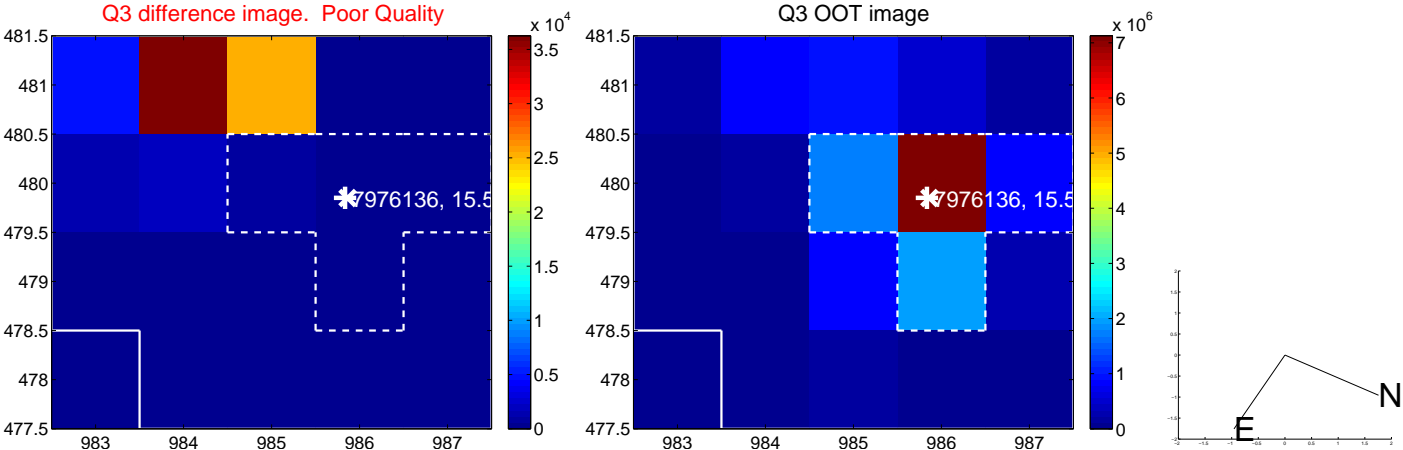
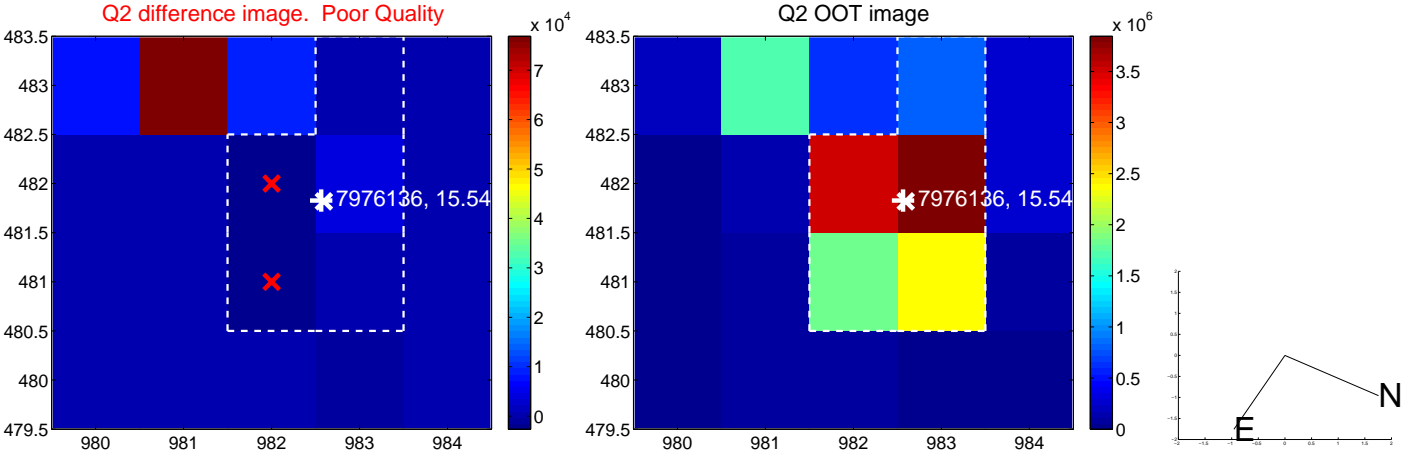
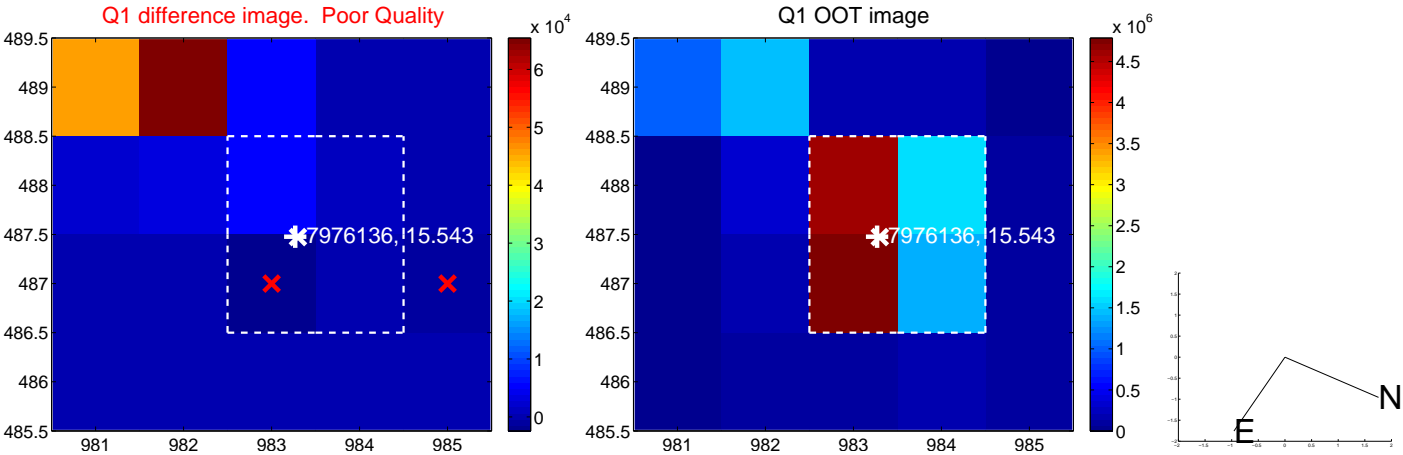


offset from photometric centroids

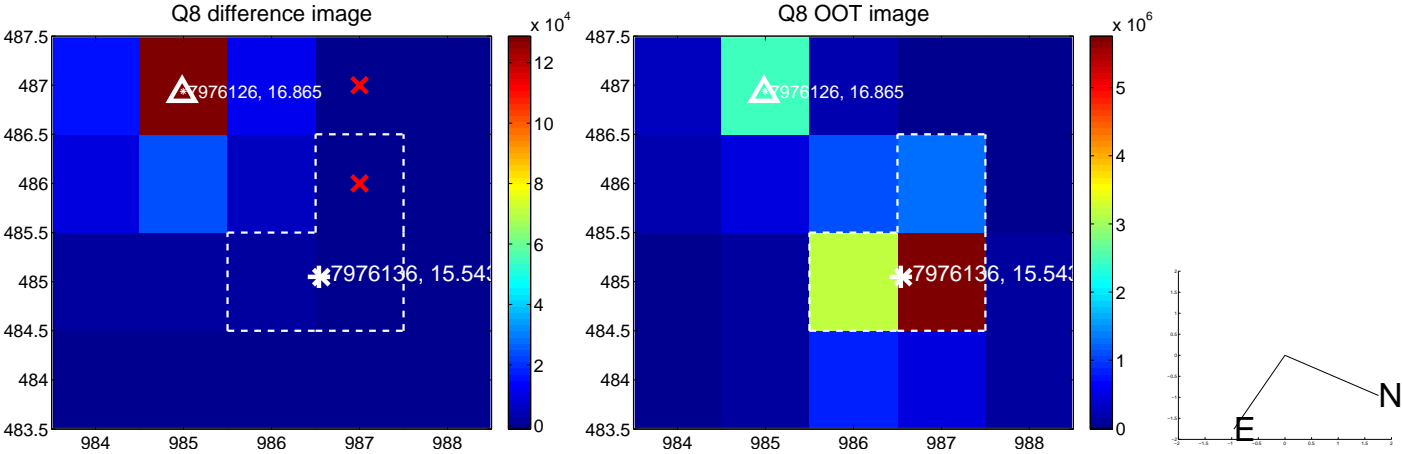
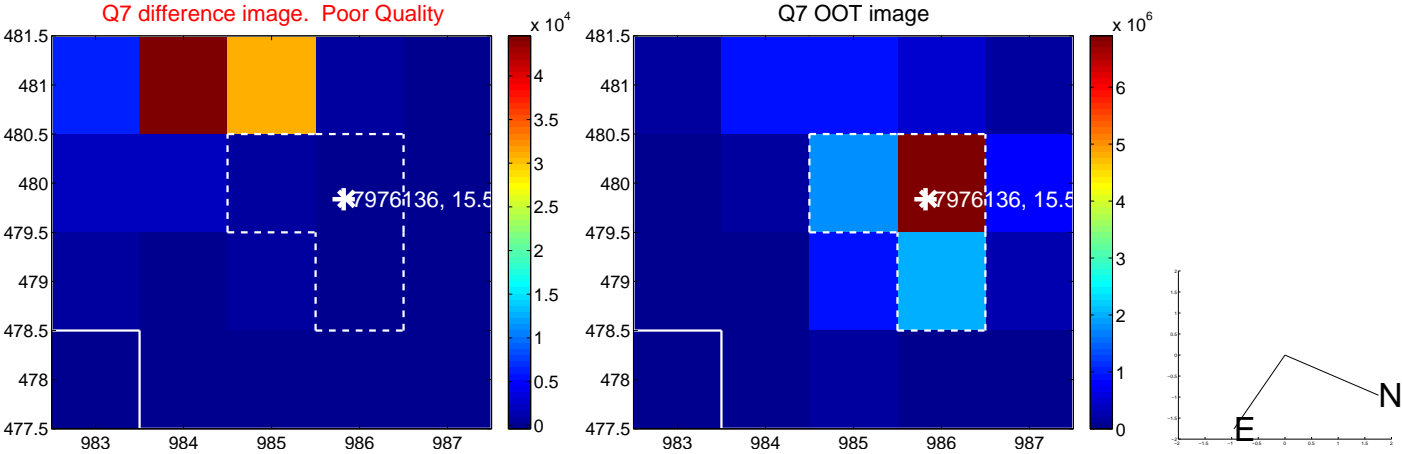
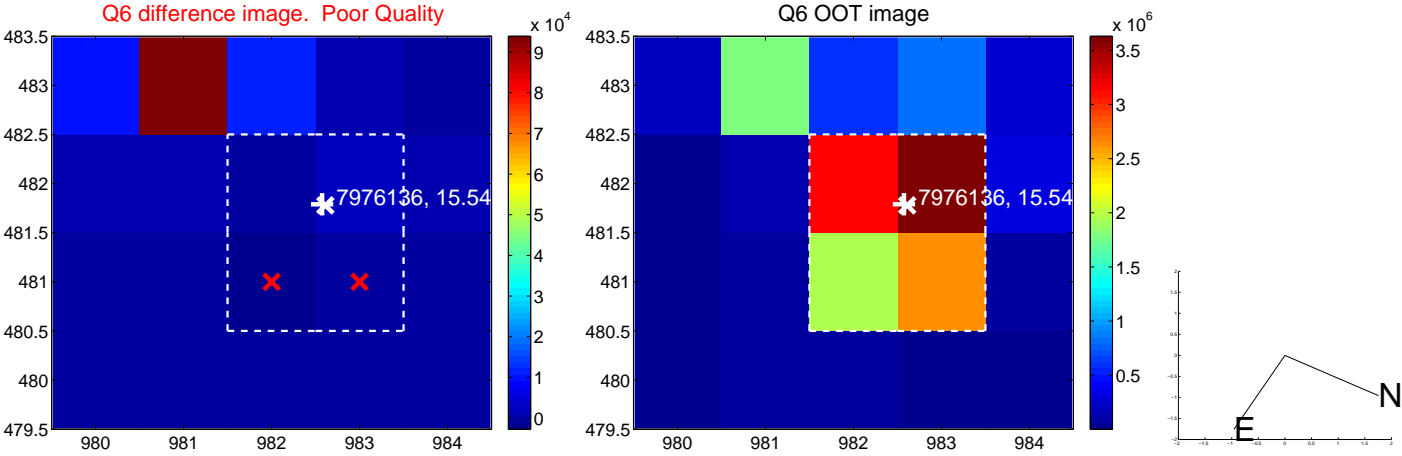
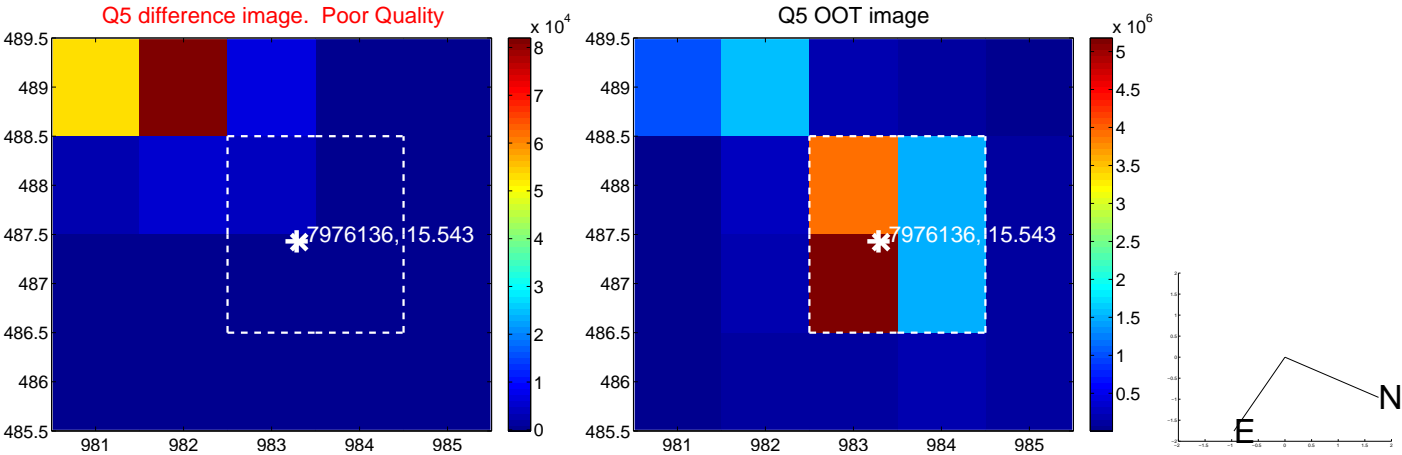


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

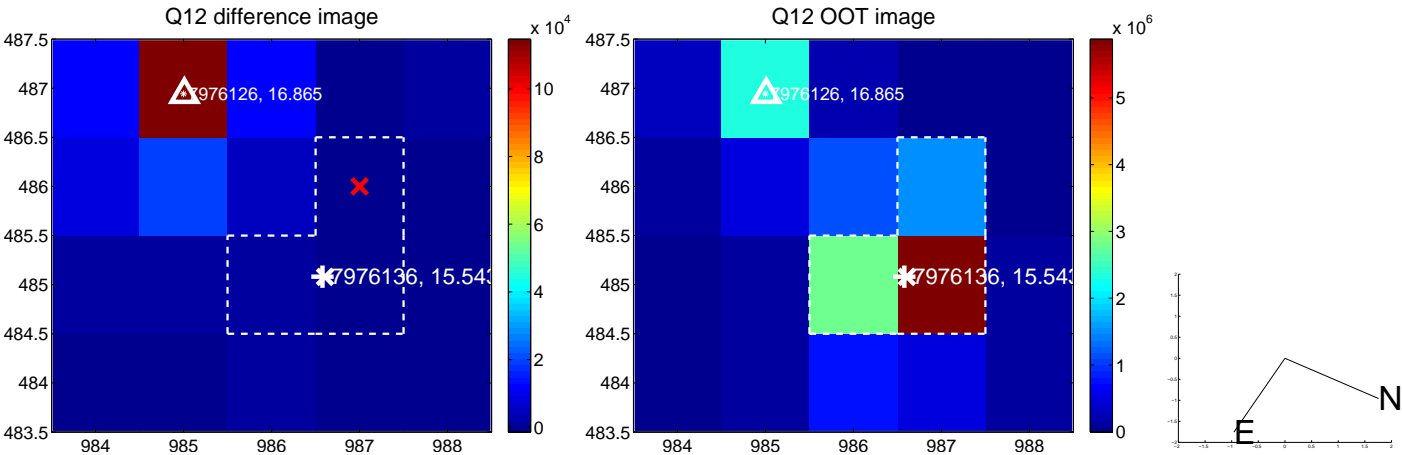
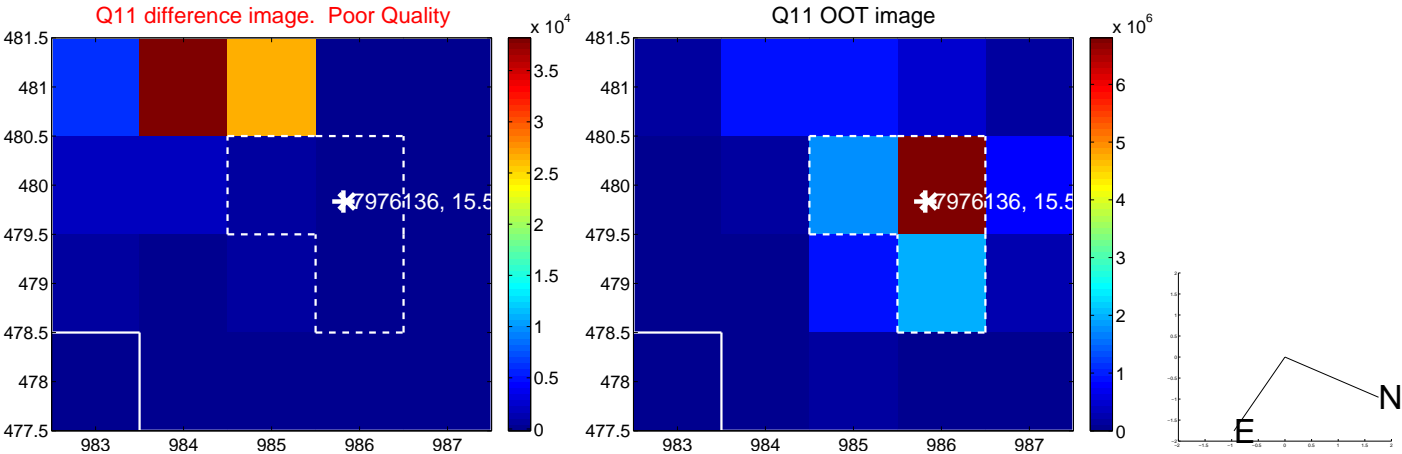
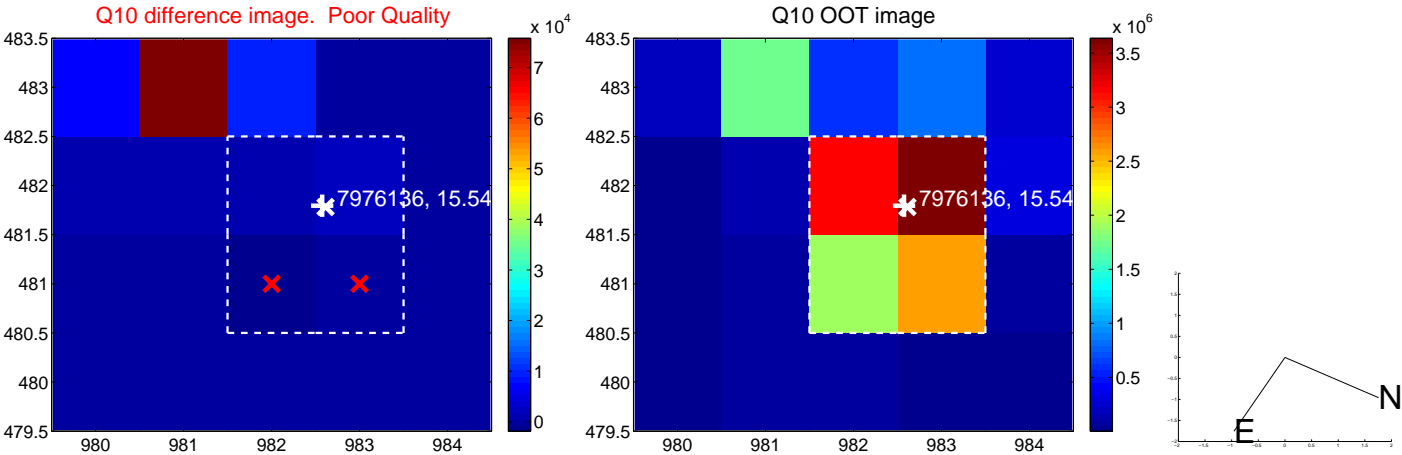
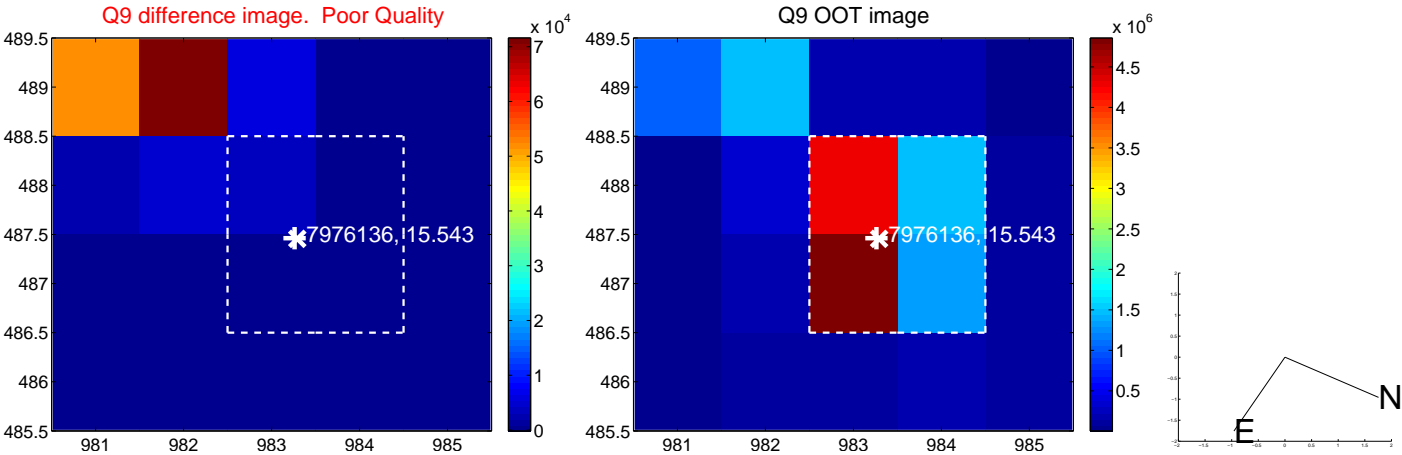
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



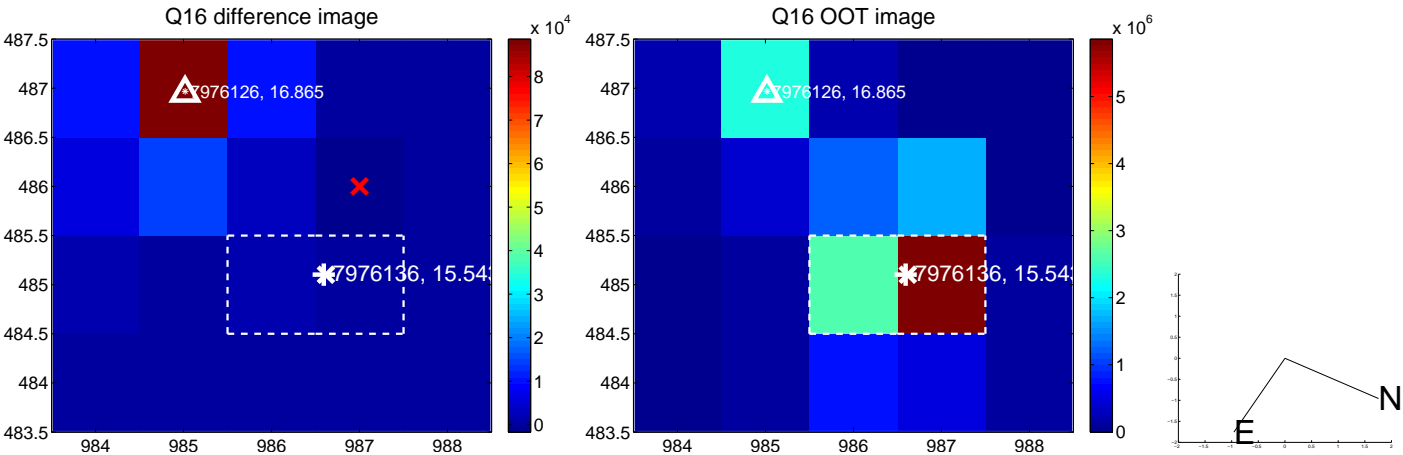
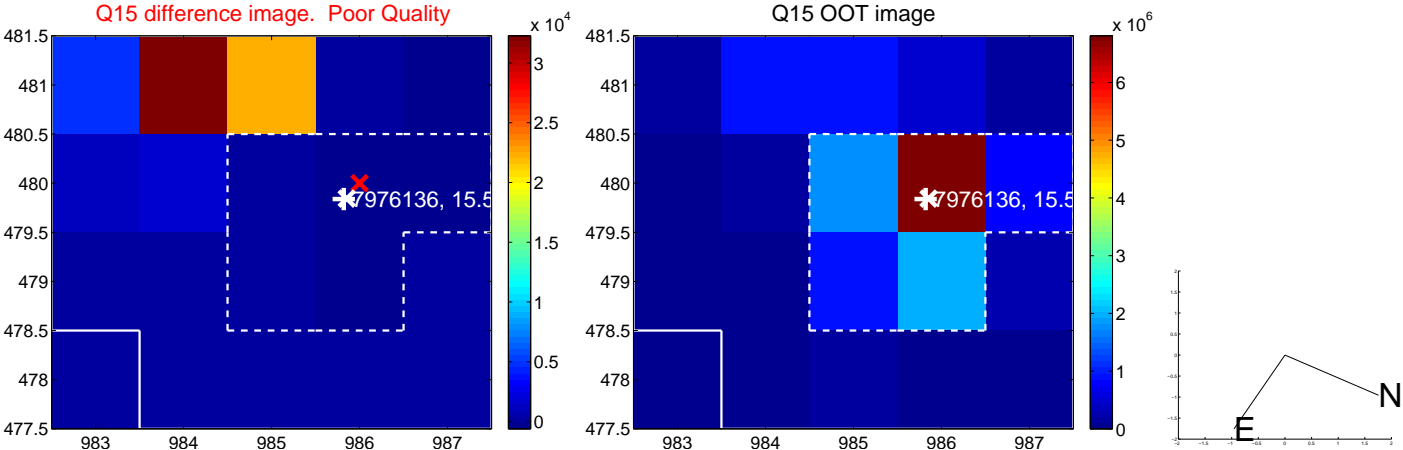
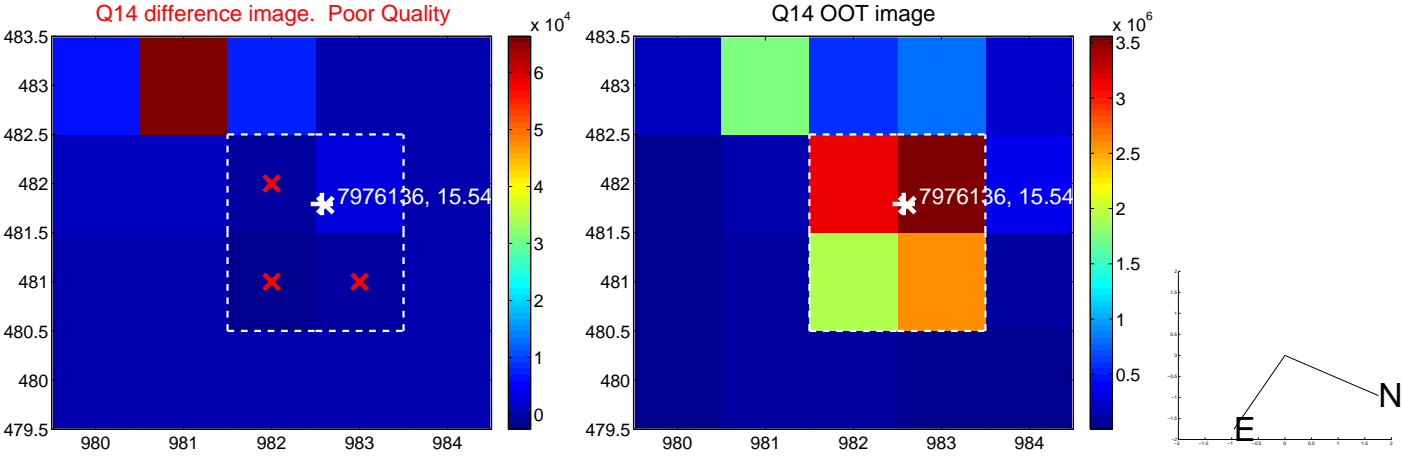
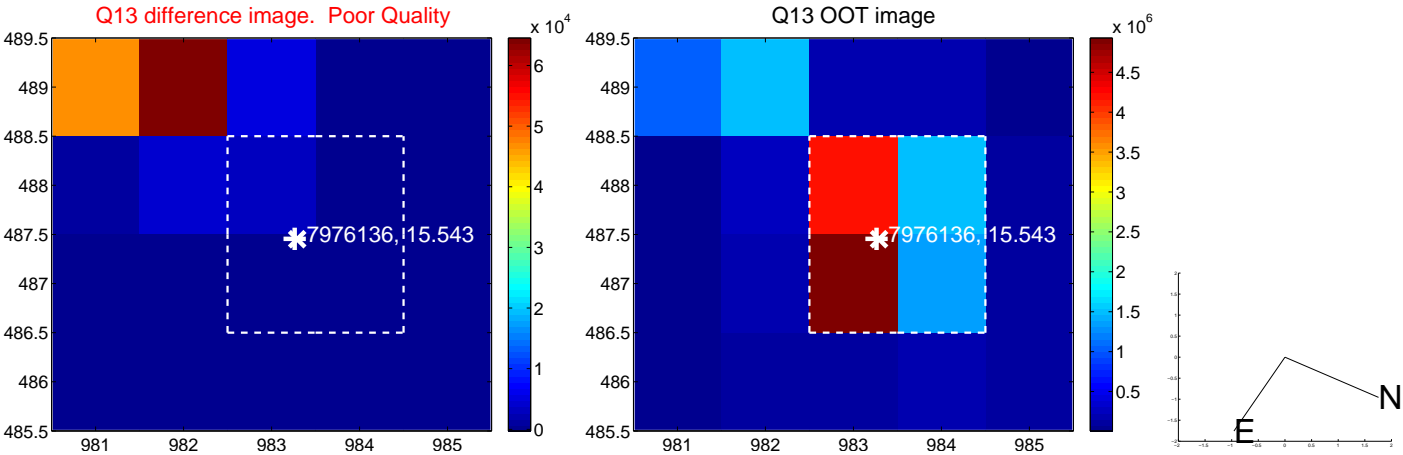
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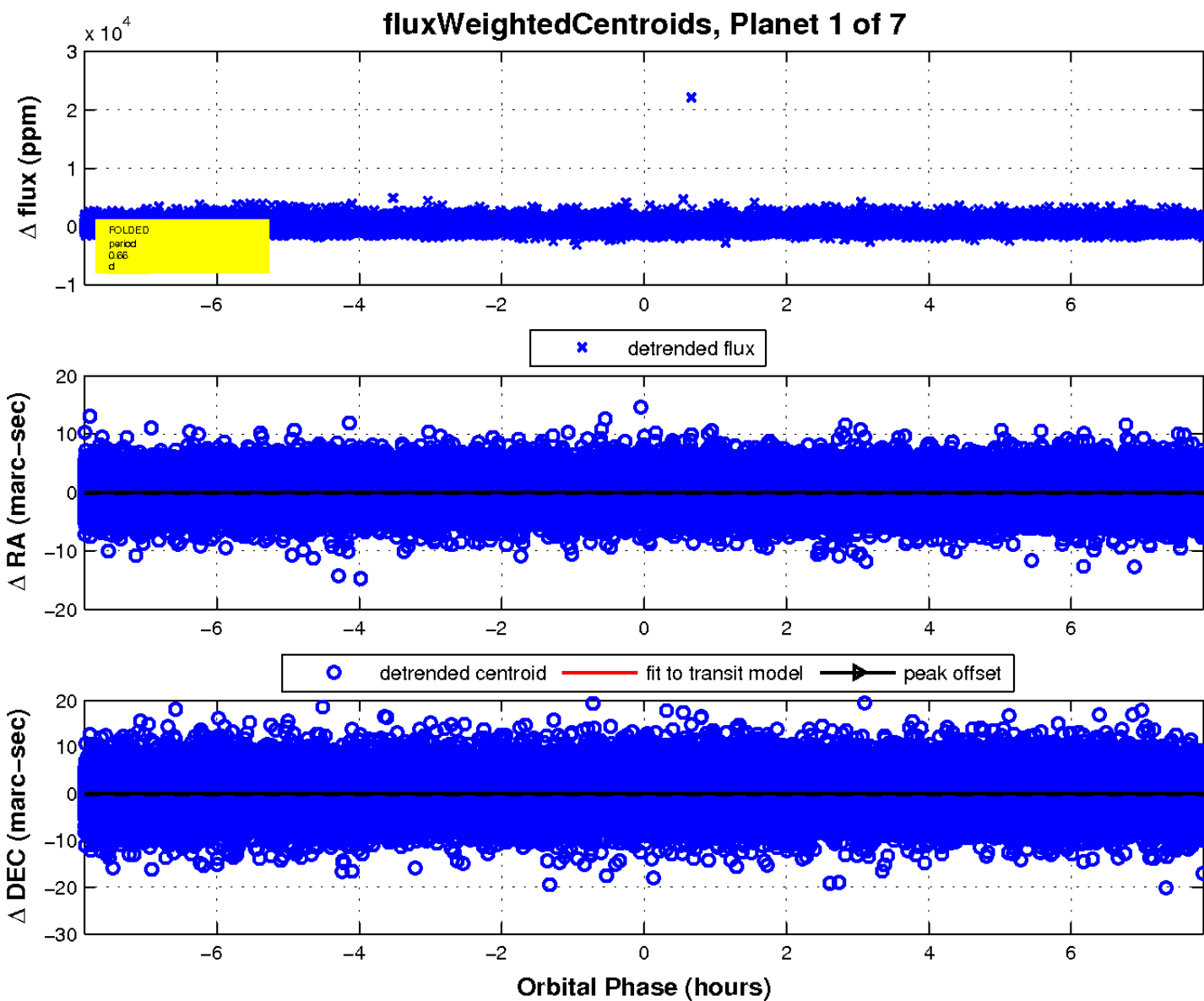
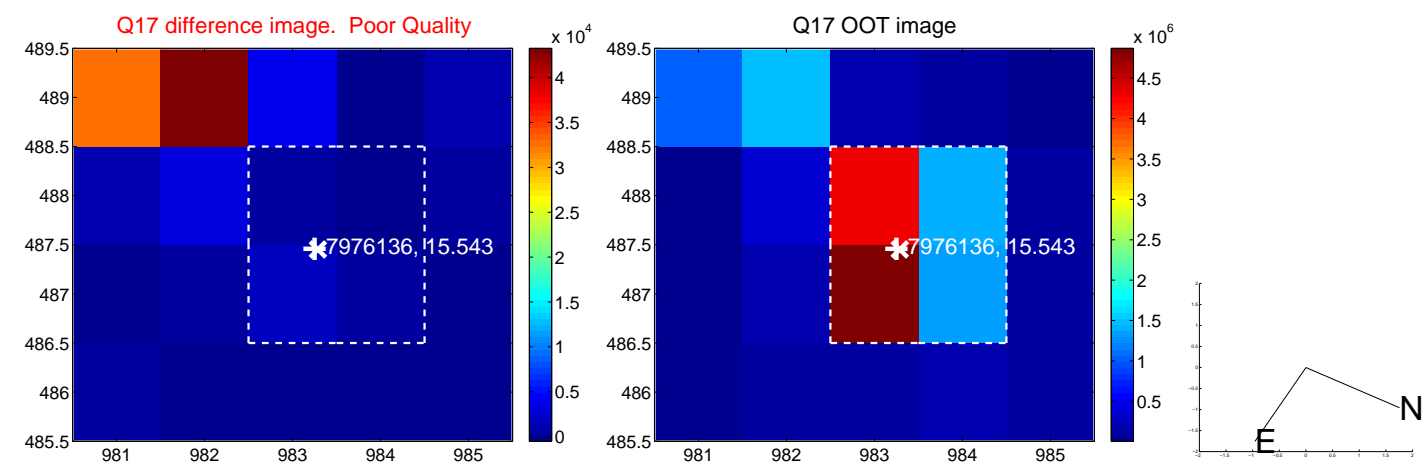
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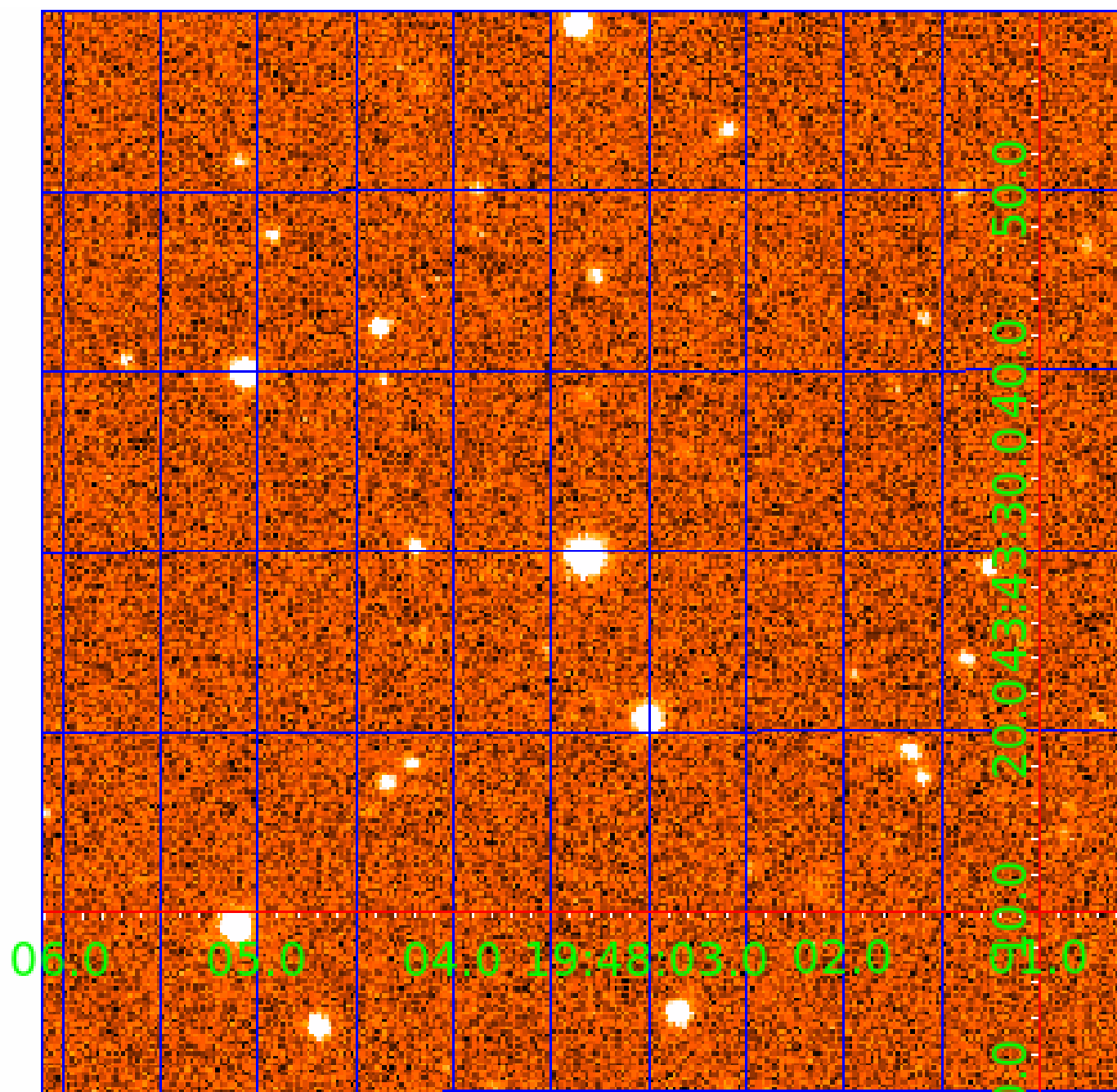


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UKIRT Image

Declination



KIC 007976136

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007976136-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_RESOLVED_OFFSET
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N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

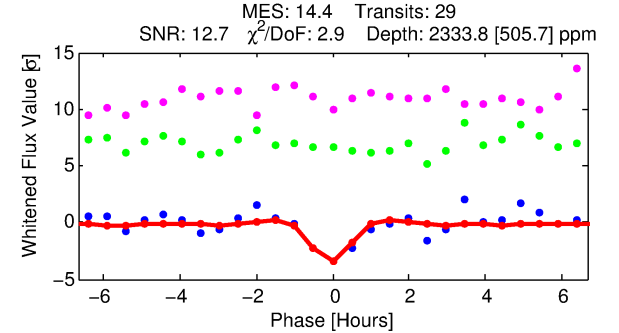
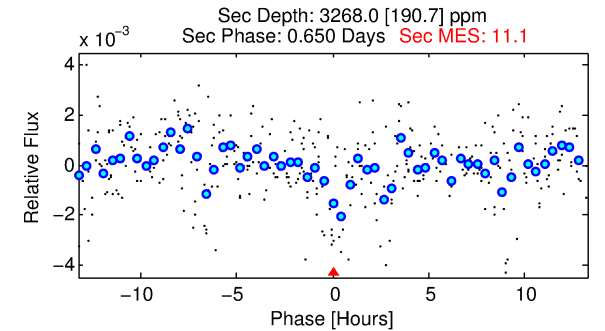
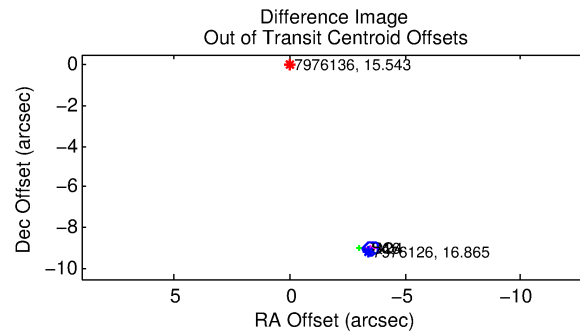
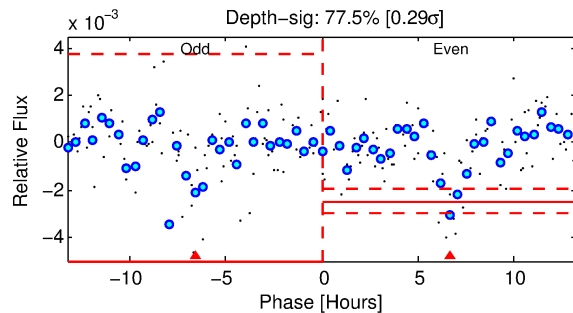
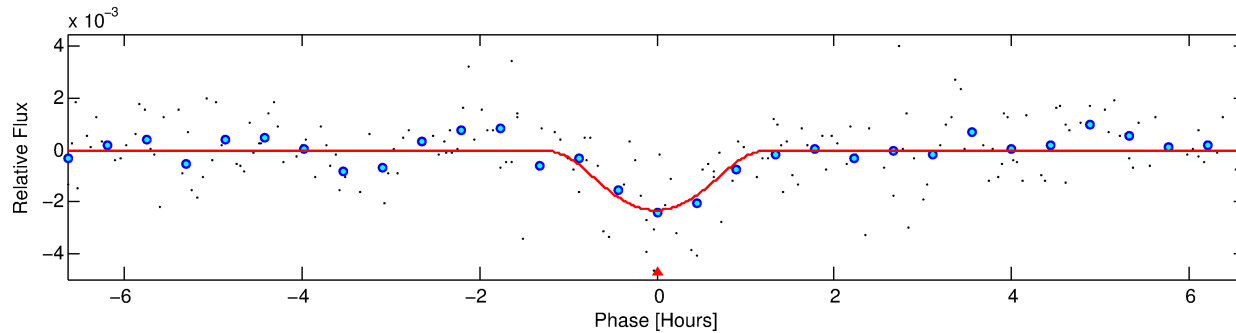
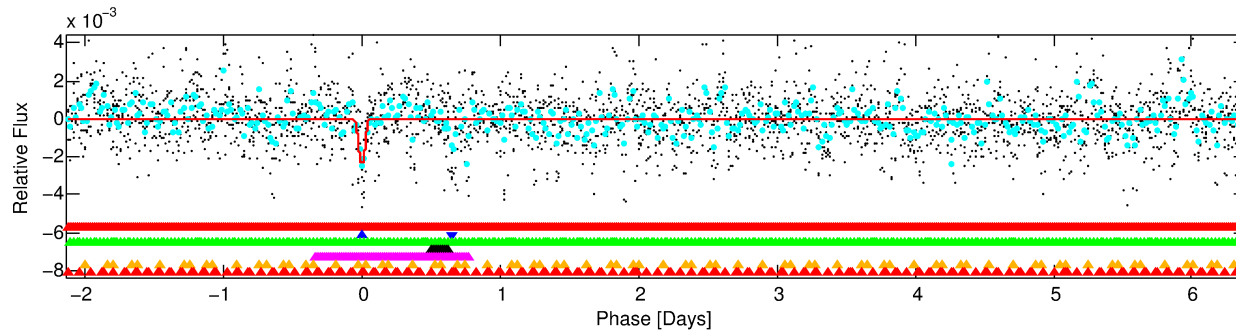
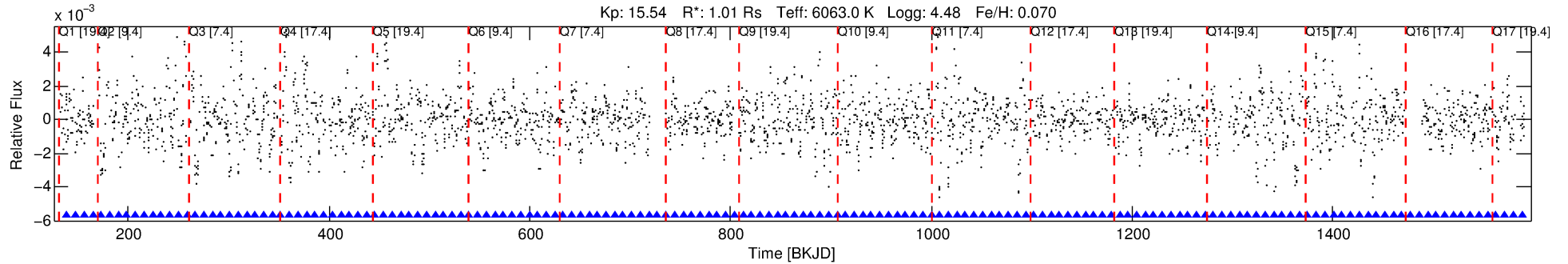
Ephemeris Match Information For 007976136-02

No Significant Match Found

DV One-Page Summary

KIC: 7976136 Candidate: 2 of 7 Period: 8.523 d
KOI: K06945 Corr: No Ephemeris Match

Kp: 15.54 R*: 1.01 Rs Teff: 6063.0 K Logg: 4.48 Fe/H: 0.070



DV Fit Results:

Period = 8.52329 [0.00009] d
Epoch = 139.2114 [0.0061] BKJD
Rp/R* = 0.0782 [0.4815]
a/R* = 12.51 [18.40]
b = 0.99 [0.74]
Seff = 172.57 [64.97]
Teq = 924 [87] K
Rp = 8.64 [53.23] Re
a = 0.0848 [0.0203] AU
Ag = 173.04 [2130.75] [0.08σ]
Teff = 5183 [15949] K [0.27σ]

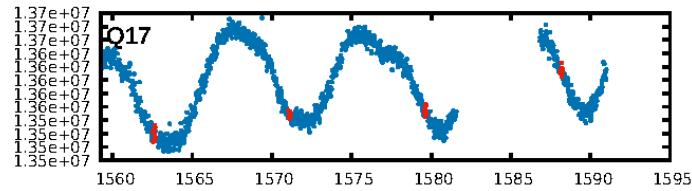
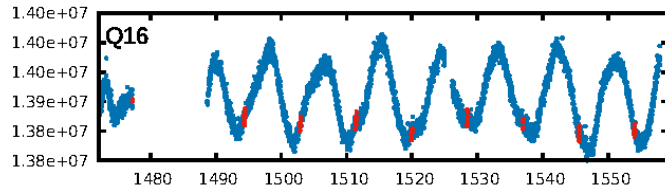
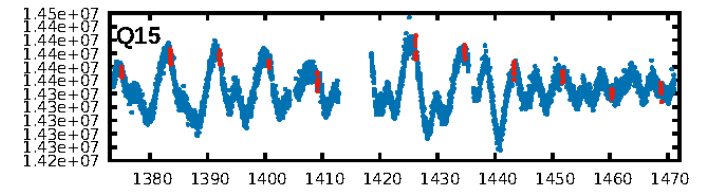
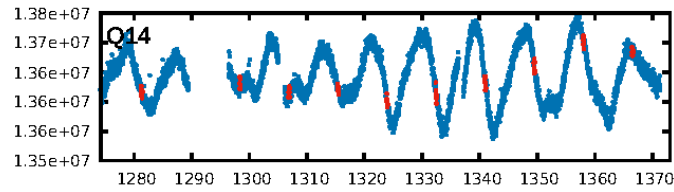
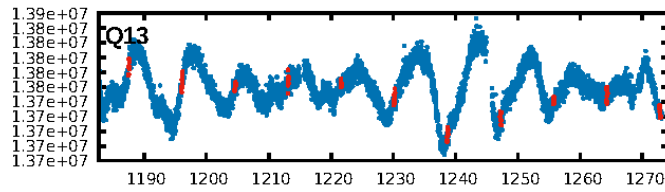
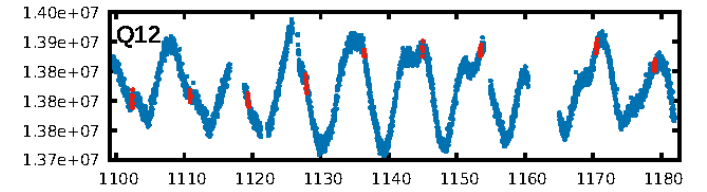
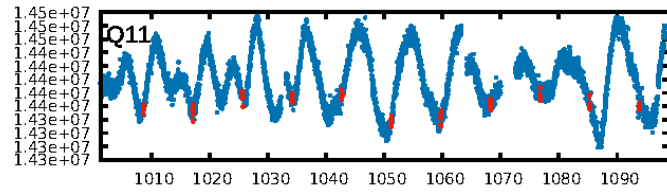
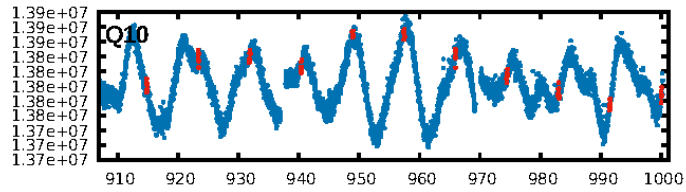
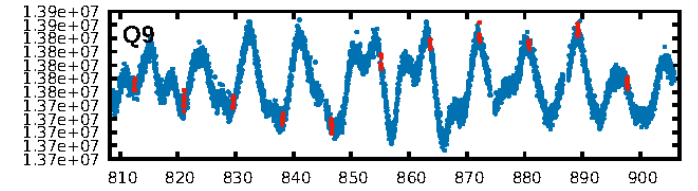
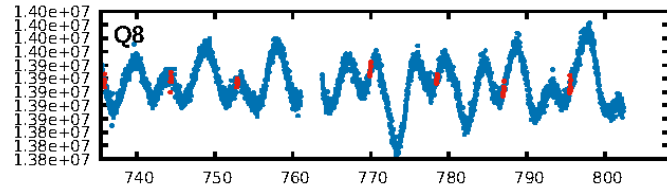
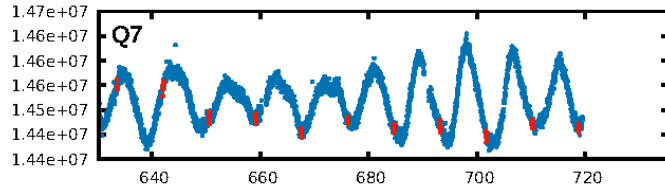
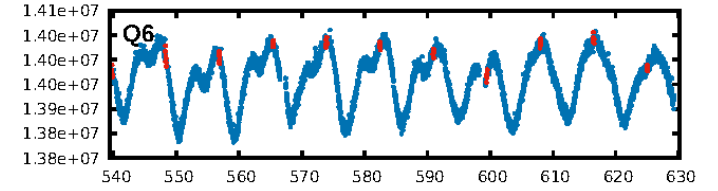
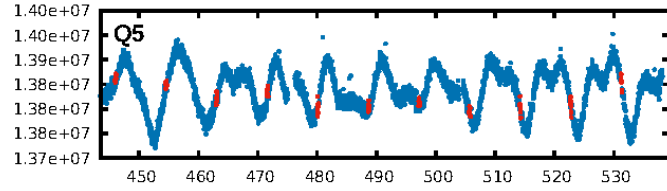
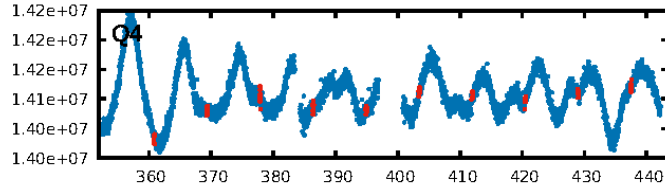
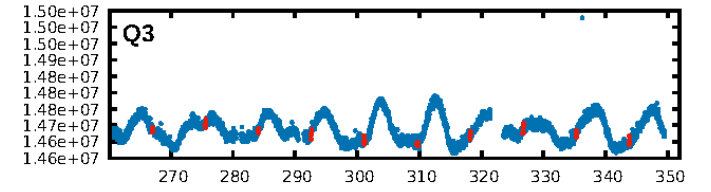
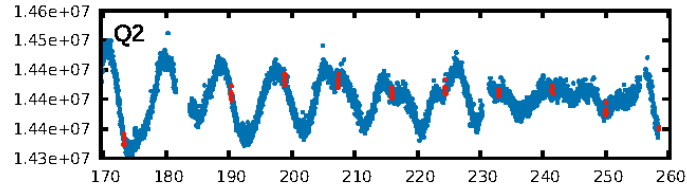
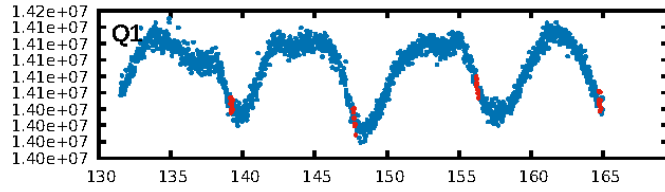
DV Diagnostic Results:

ShortPeriod-sig: 4.4% [0.06σ]
LongPeriod-sig: 0.5% [0.01σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGoF-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [29/29]
GhostDiagnostic-chr: -2.116
Centroid-sig: 14.9%
Centroid-so: 0.928 arcsec [3.77σ]
OotOffset-rm: 9.667 arcsec [92.44σ]
KicOffset-rm: 9.755 arcsec [86.58σ]
OotOffset-st: 0/0/3/0 [3]
KicOffset-st: 0/0/3/0 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 0.00 [0/17]

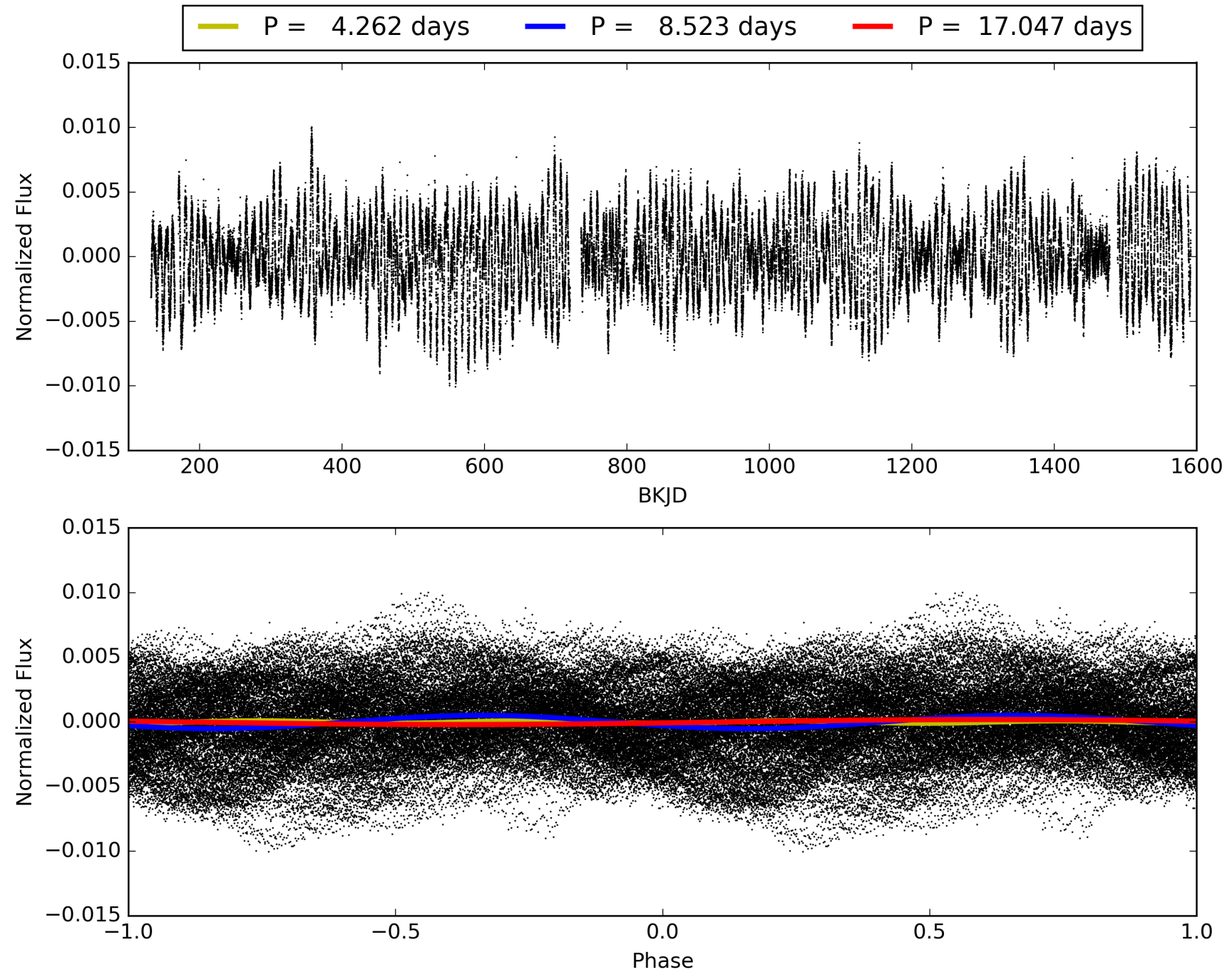
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 06:03:15 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 007976136-02, PDC Light Curves

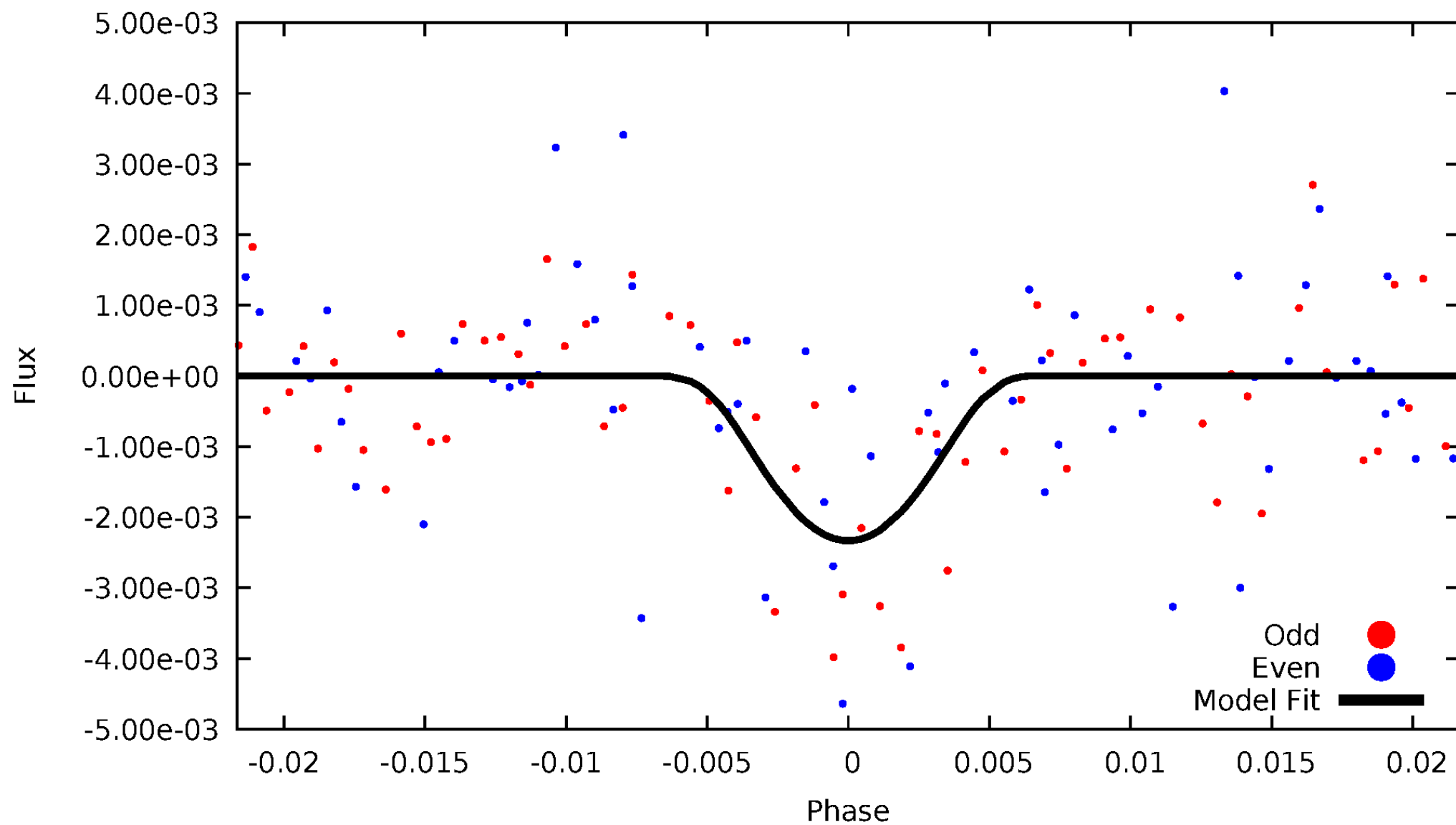


TCE 007976136-02



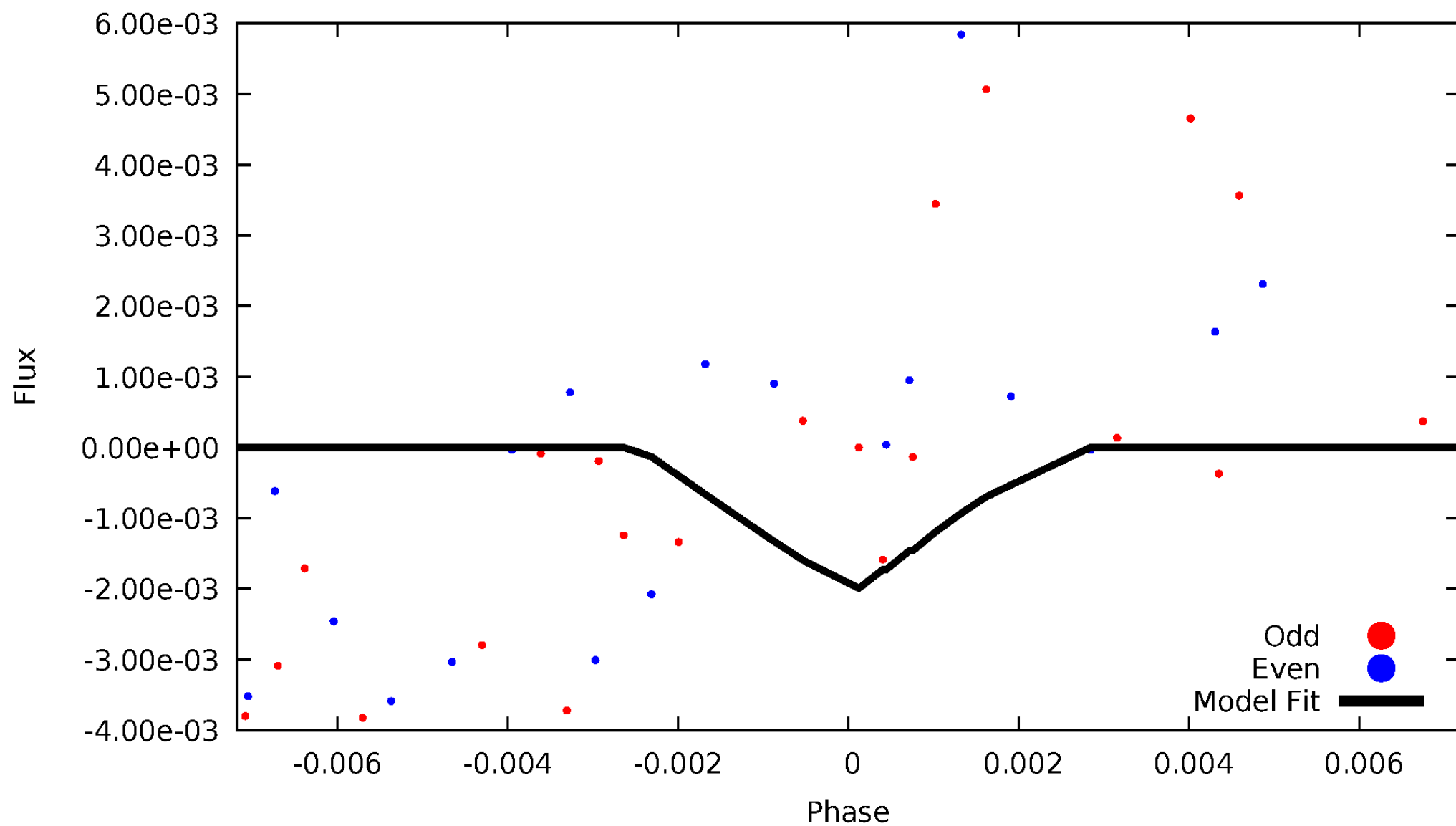
DV Odd/Even

TCE 007976136-02



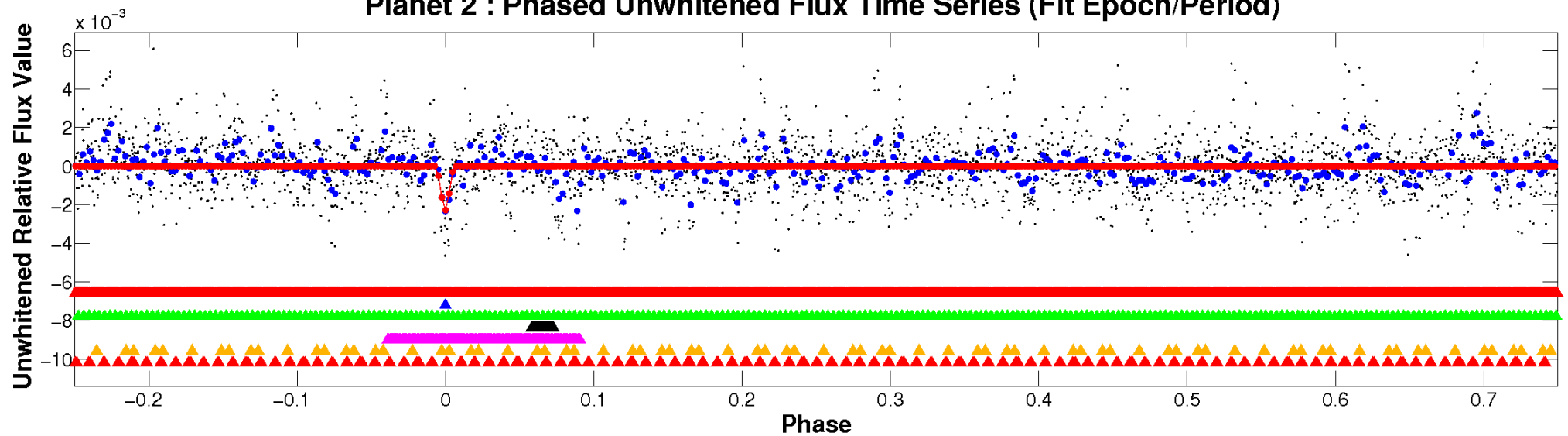
ALT Odd/Even

TCE 007976136-02

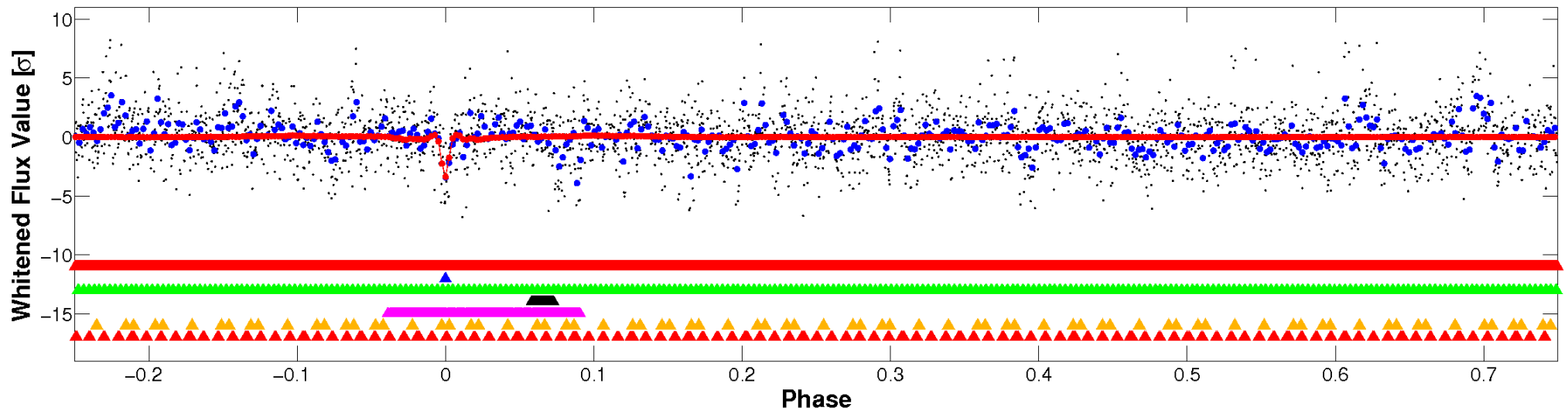


Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

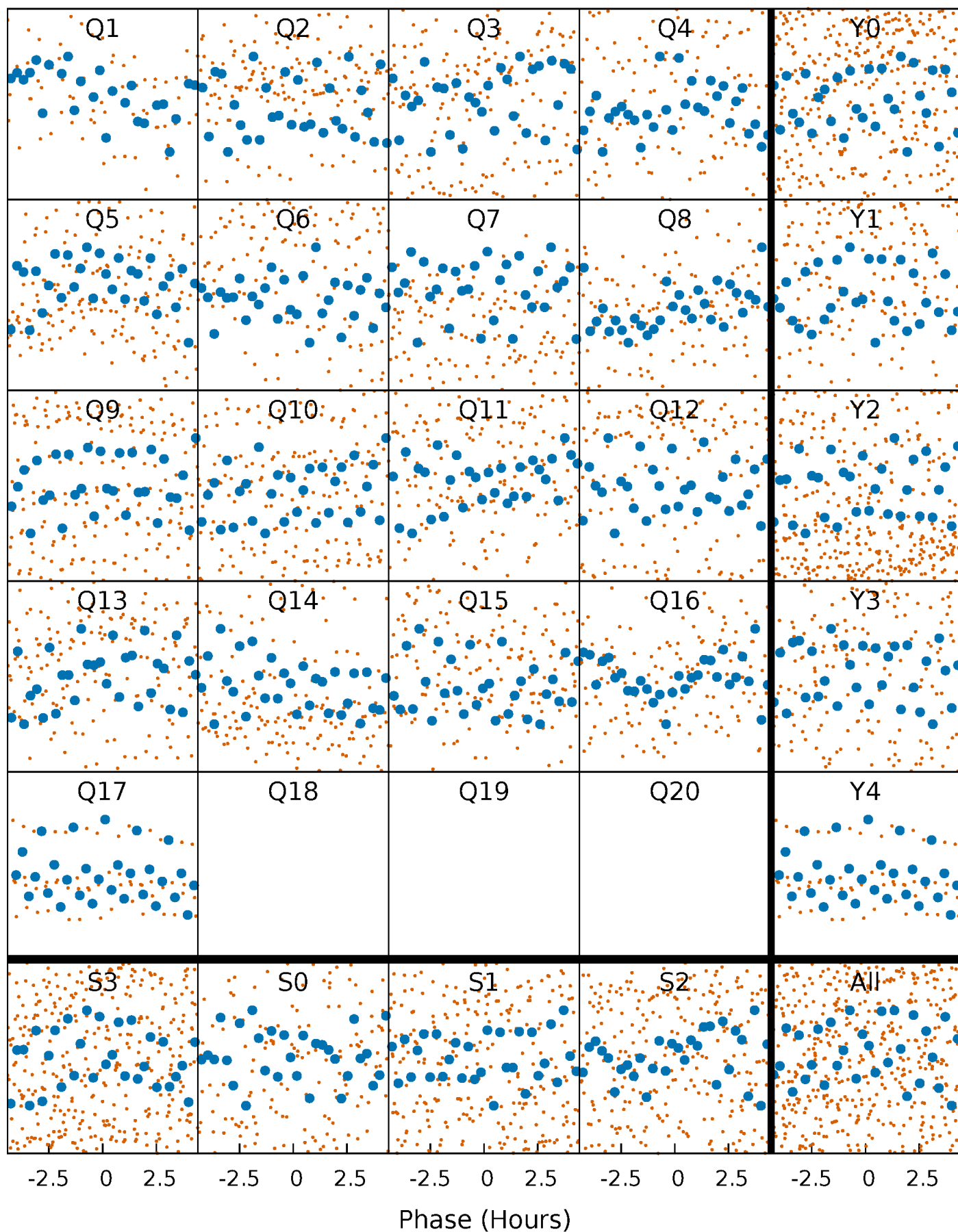


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



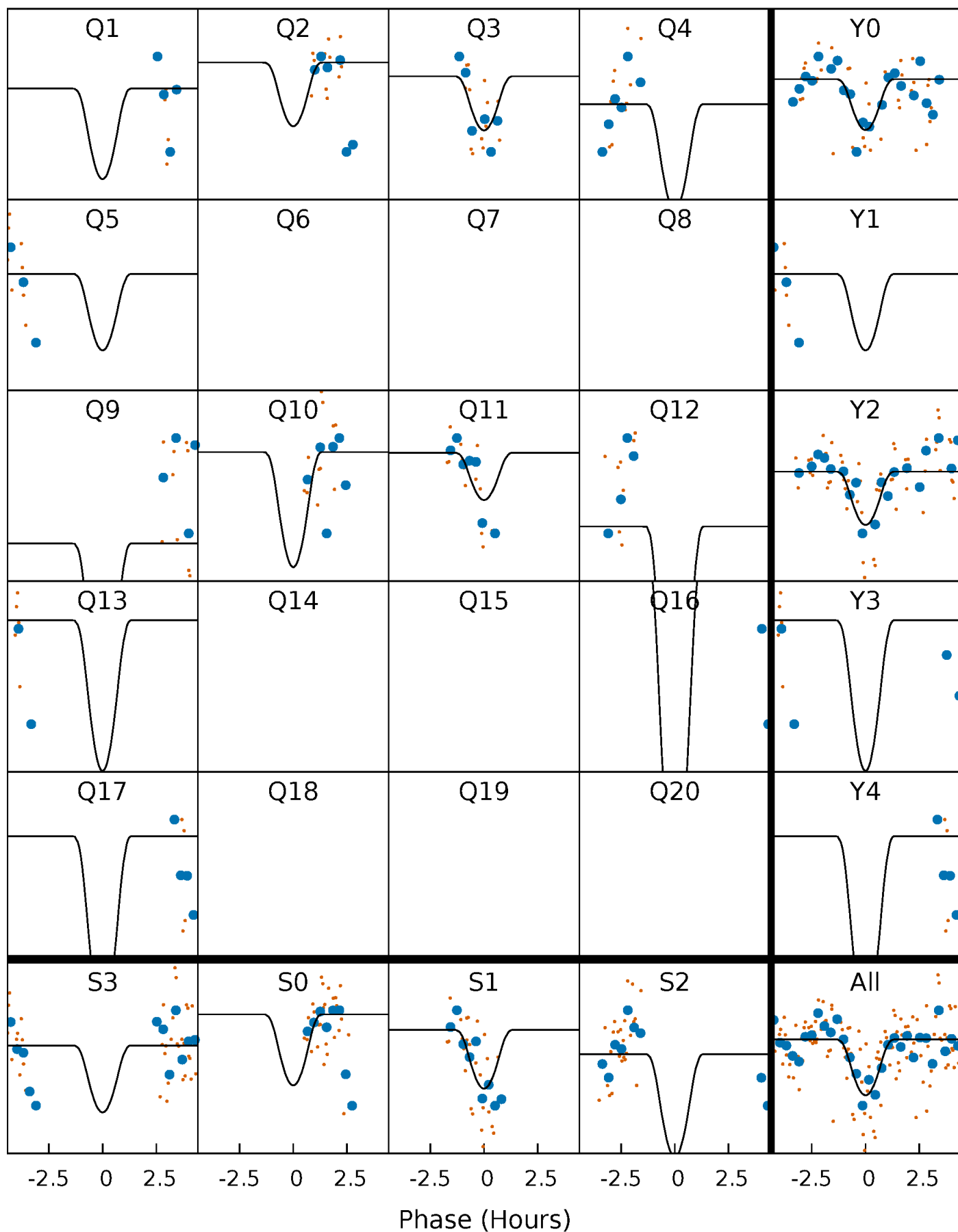
PDC Quarter-Phased Transit Curves

TCE 007976136-02 P= 8.523290 Days $T_0=139.211373$ (BKJD)



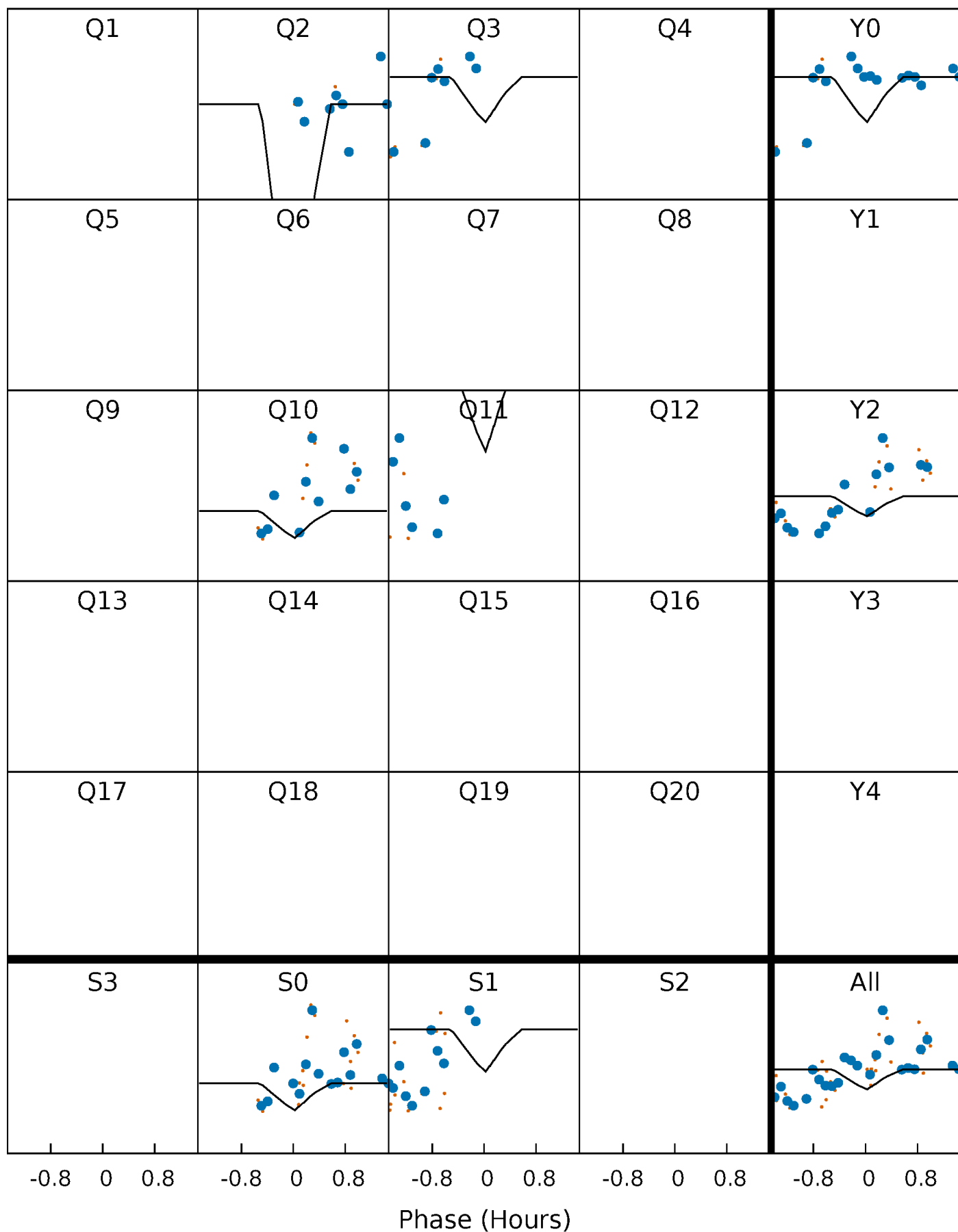
DV Quarter-Phased Transit Curves

TCE 007976136-02 P= 8.523290 Days $T_0=139.211373$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

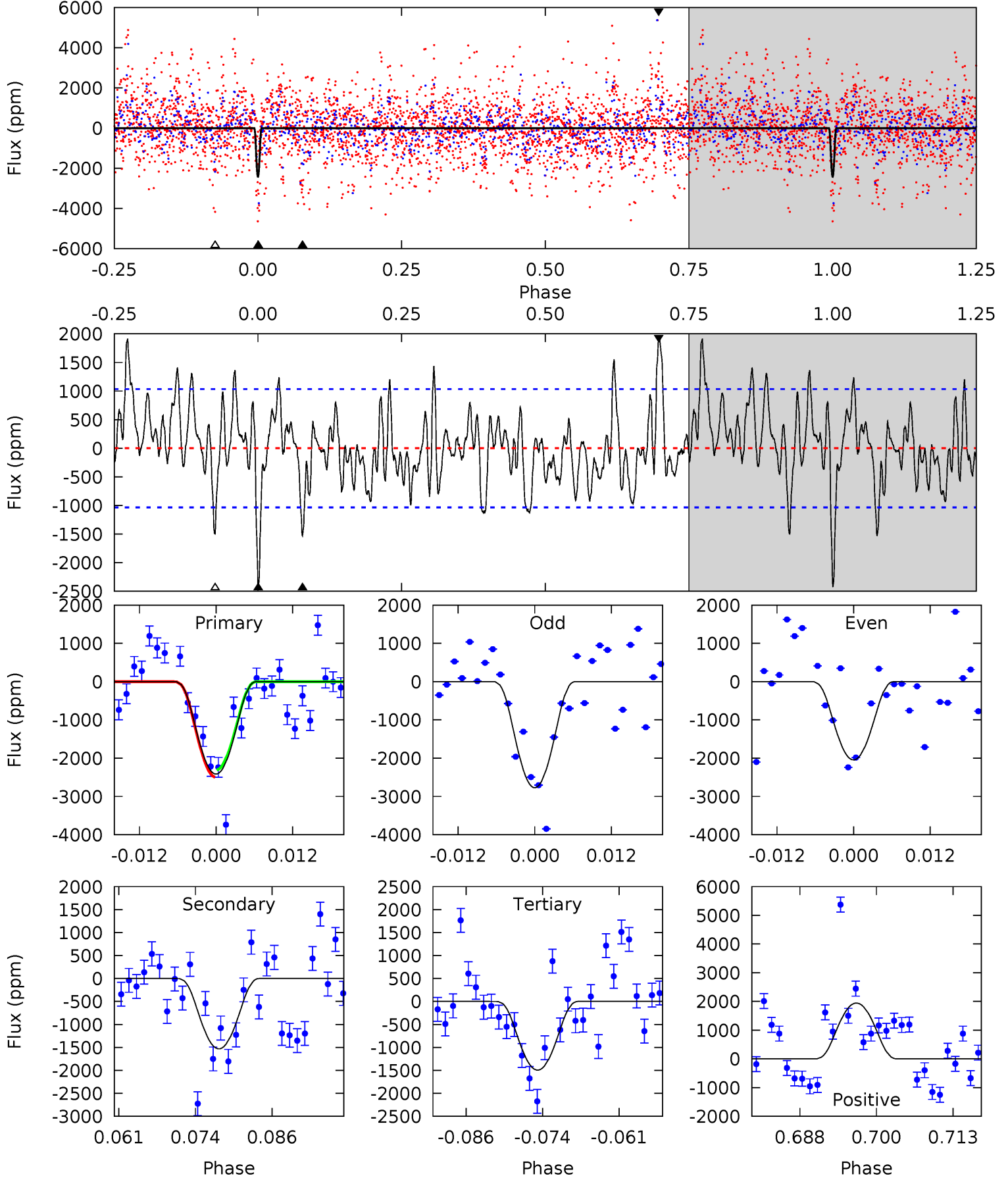
TCE 007976136-02 P= 8.523399 Days $T_0=139.244245$ (BKJD)



DV Model-Shift Uniqueness Test

007976136-02, P = 8.523290 Days, E = 130.688083 Days

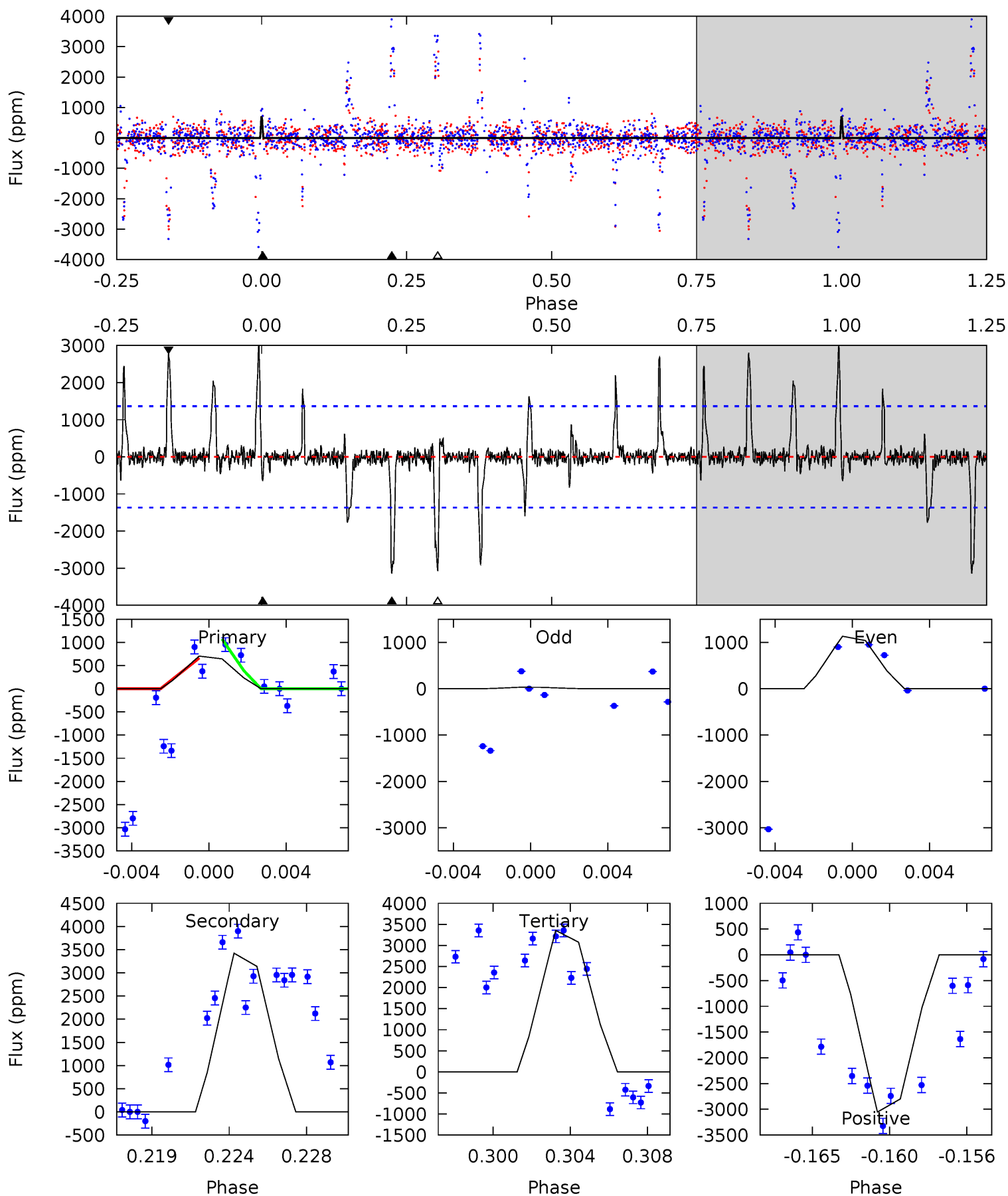
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.6	7.39	7.21	9.38	4.99	2.50	2.71	4.44	2.27	0.18	-1.99	1.76	1.09	0.45	0.45



Alt Model-Shift Uniqueness Test

007976136-02, P = 8.523399 Days, E = 130.720846 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.45	11.9	11.7	10.6	5.19	2.86	1.69	-9.24	-8.19	0.23	1.29	2.33	1.00	0.49	0.62



Stellar Parameters For KIC 007976136

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6063^{+169}_{-211}	$4.476^{+0.048}_{-0.192}$	$0.070^{+0.200}_{-0.350}$	$1.012^{+0.286}_{-0.114}$	$1.117^{+0.120}_{-0.174}$	$1.519^{+0.379}_{-0.737}$
	+3%/-3%	+1%/-4%	+286%/-500%	+28%/-11%	+11%/-16%	+25%/-49%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 007976136-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1531 ± 207	$38.71^{+46.22}_{-26.63}$	1321^{+79}_{-65}	2756^{+1204}_{-560}	$3.782^{+33.814}_{-2.975}$
Alt.	-3139 ± 263	$38.94^{+39.69}_{-27.03}$	1322^{+84}_{-66}	3095^{+1571}_{-576}	$8.051^{+75.966}_{-6.123}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

DV Centroid Data

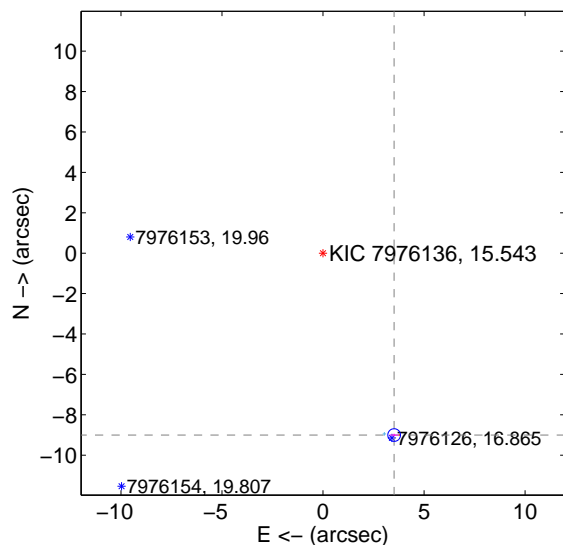
Supplemental centroid analysis for 007976136-02. Kepler magnitude: 15.54. Transit SNR 12.74

There are 2 quarters with good PRF difference image offsets

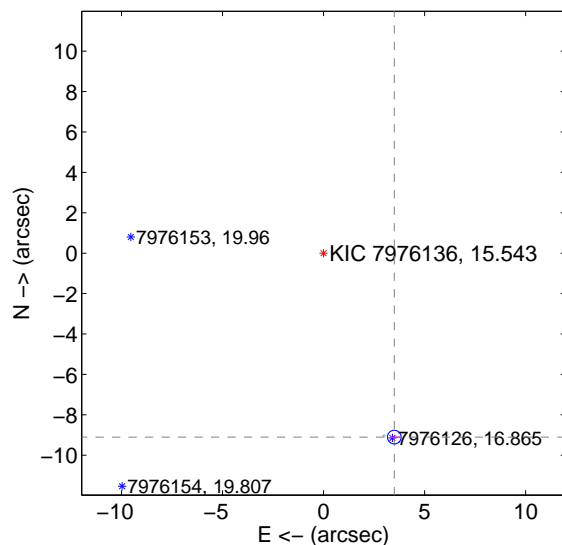
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	9.667 ± 0.105	92.44	-3.520 ± 0.228	-9.004 ± 0.068
PRF-fit source offset from KIC position	9.755 ± 0.113	86.58	-3.500 ± 0.215	-9.105 ± 0.070
photometric centroid source offset	0.93 ± 0.25	3.77	-0.01 ± 0.17	-0.93 ± 0.25

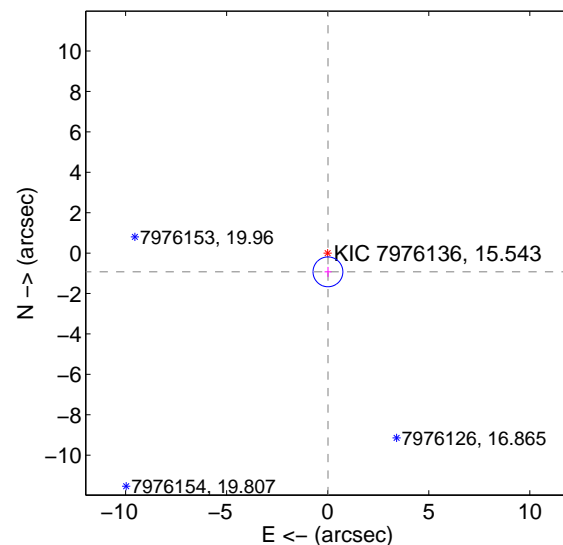
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

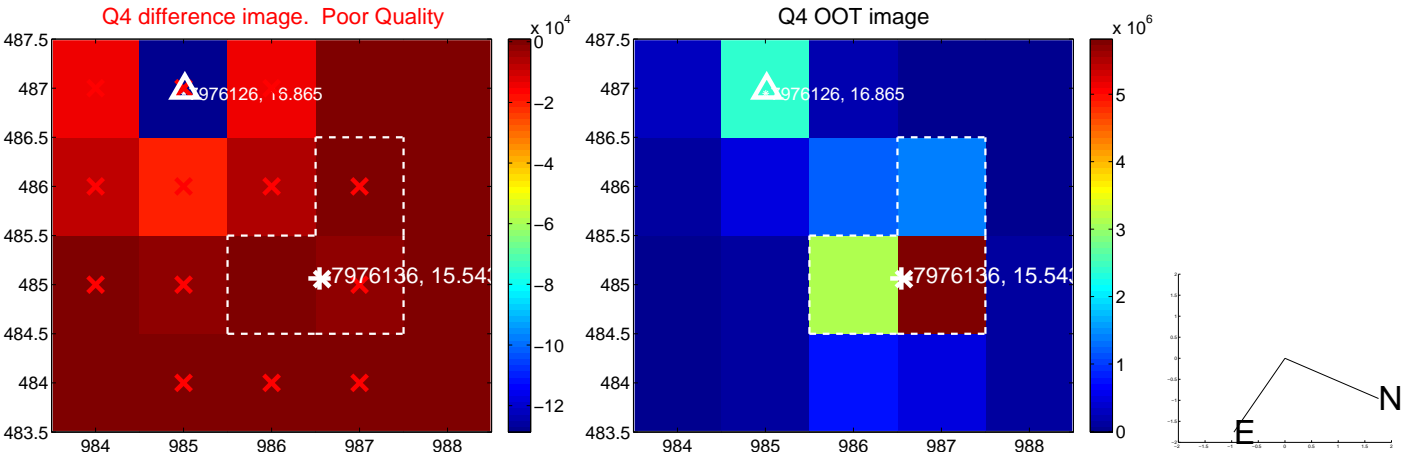
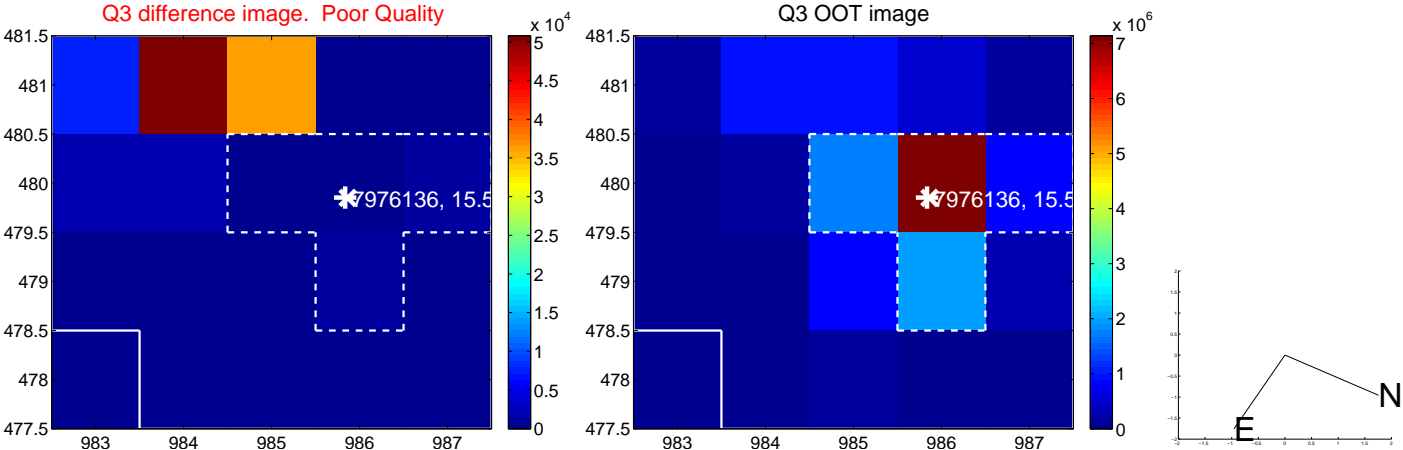
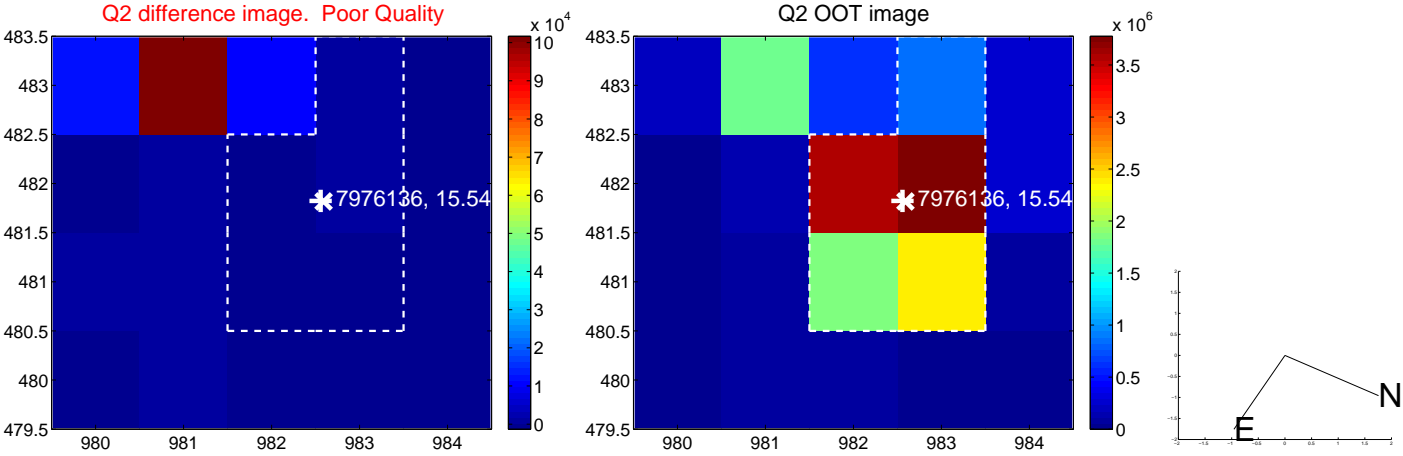
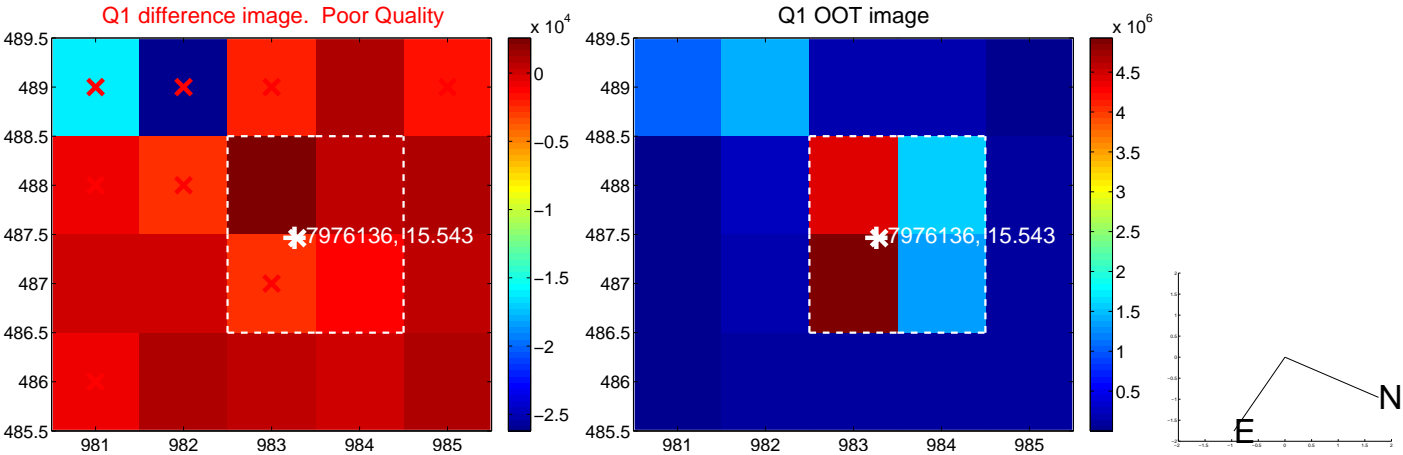


offset from photometric centroids

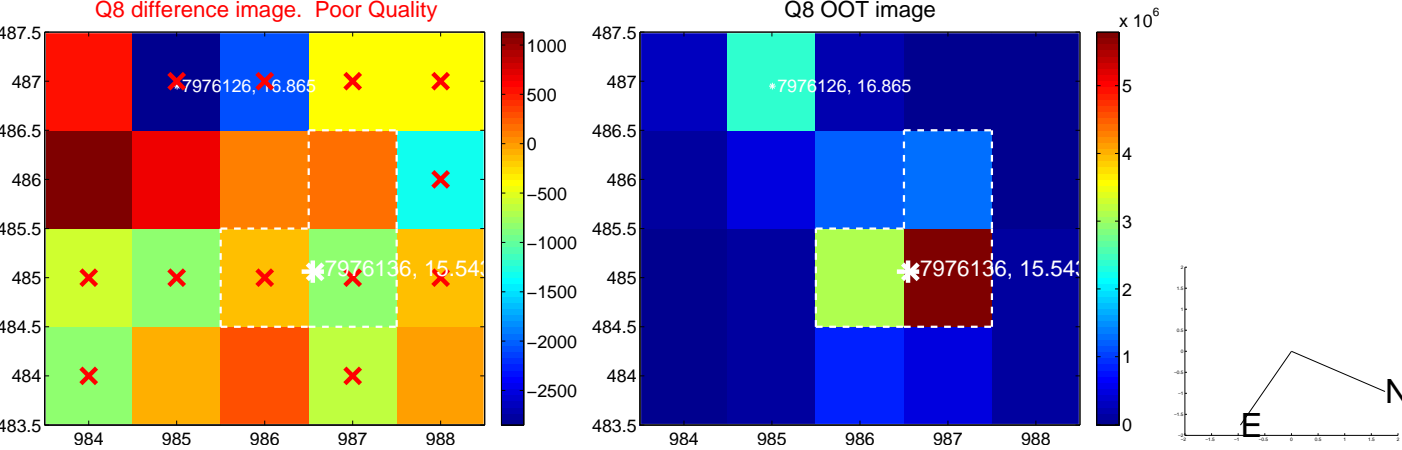
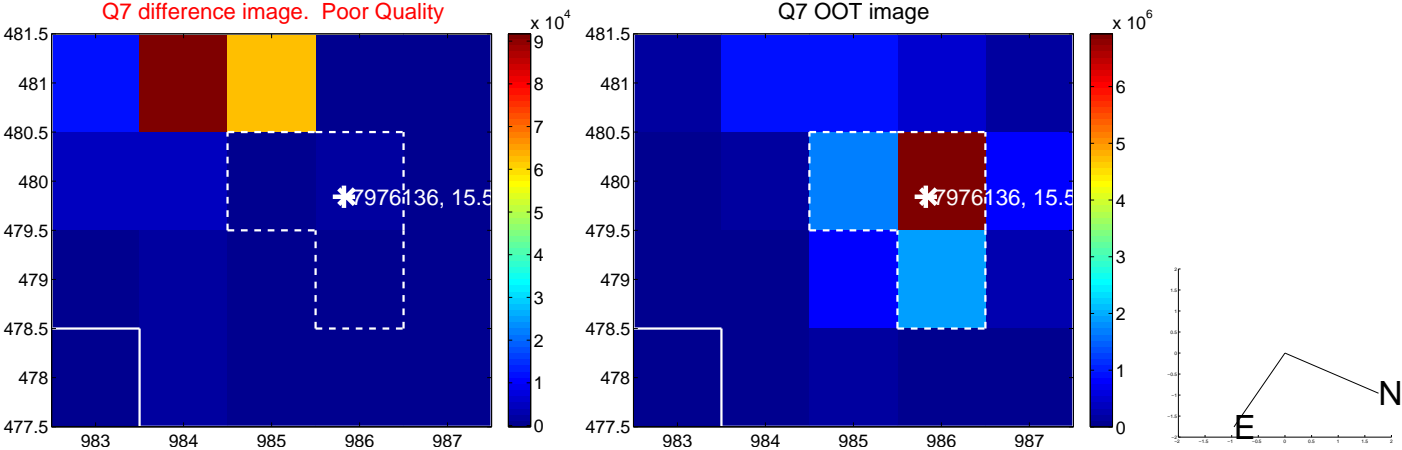
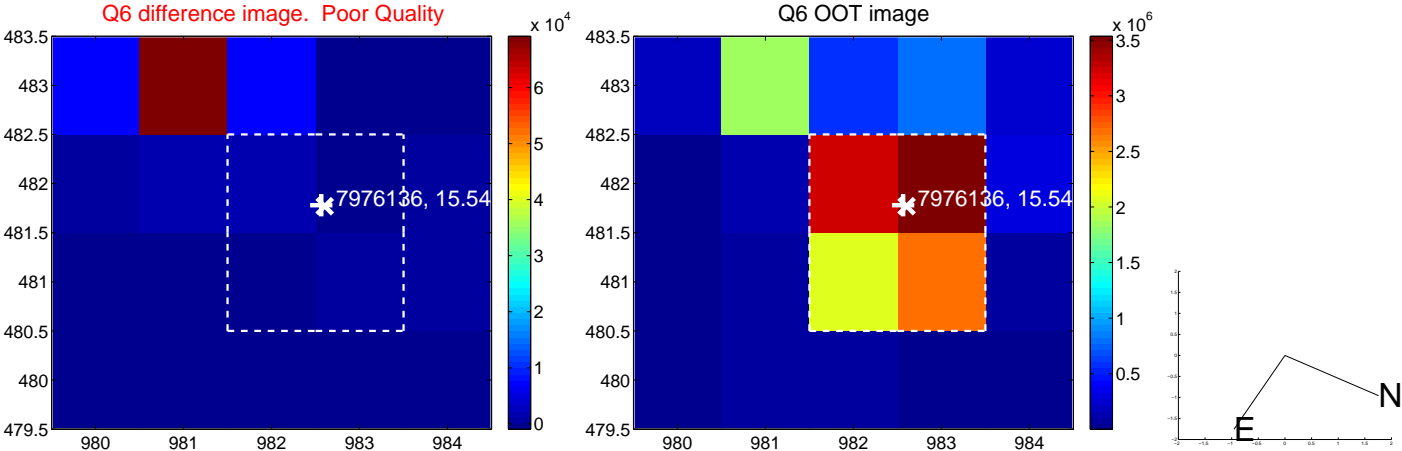
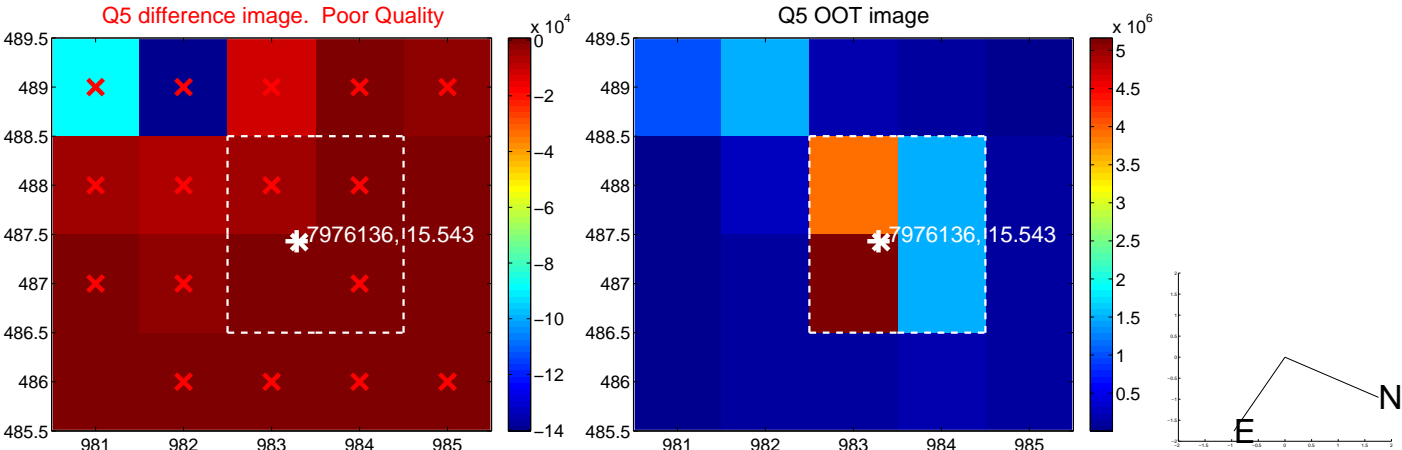


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

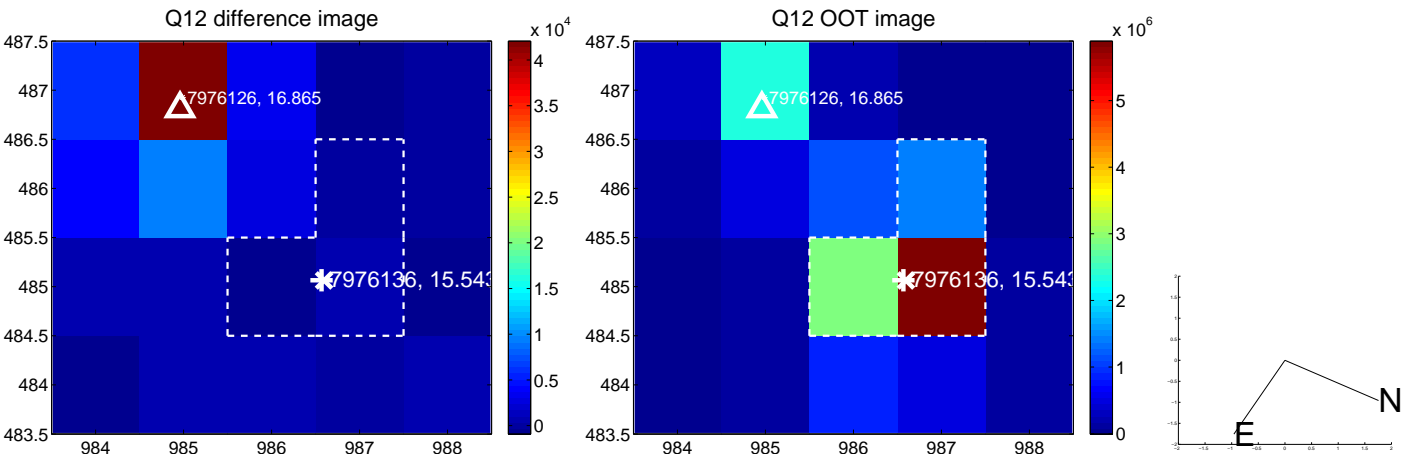
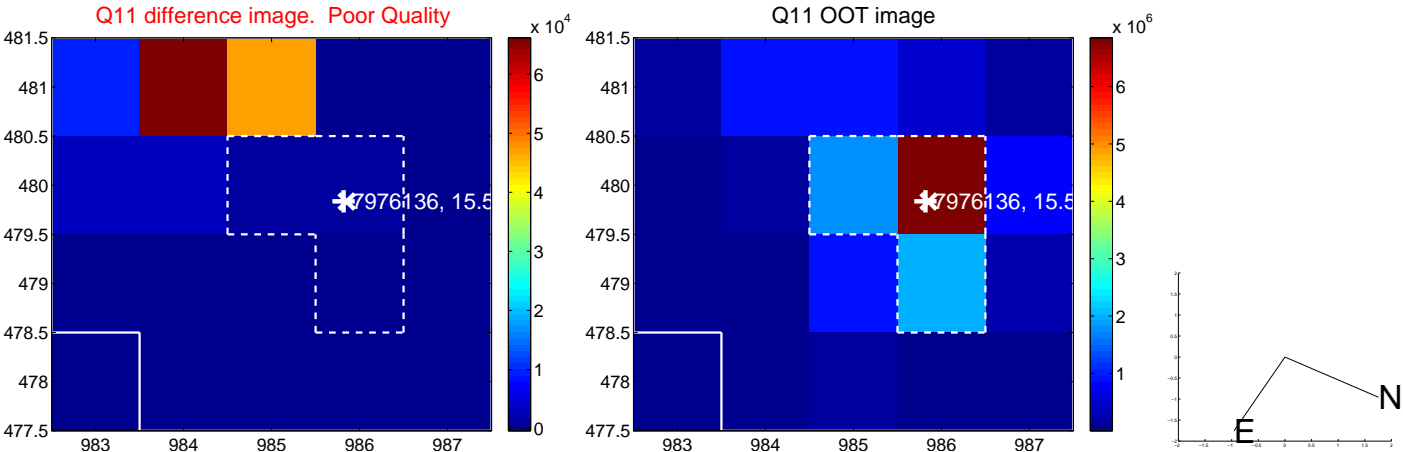
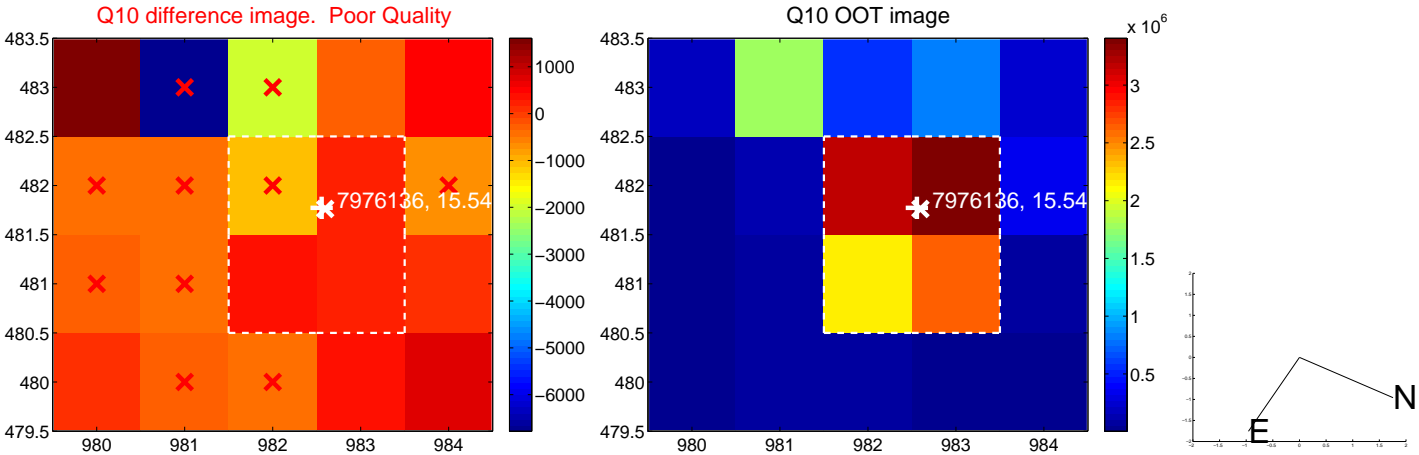
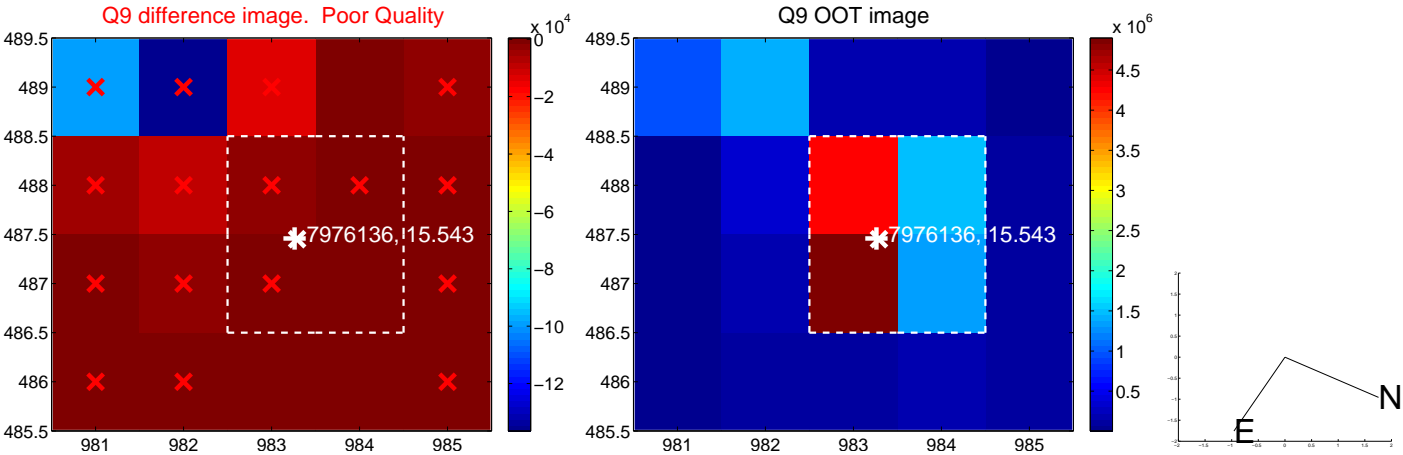
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



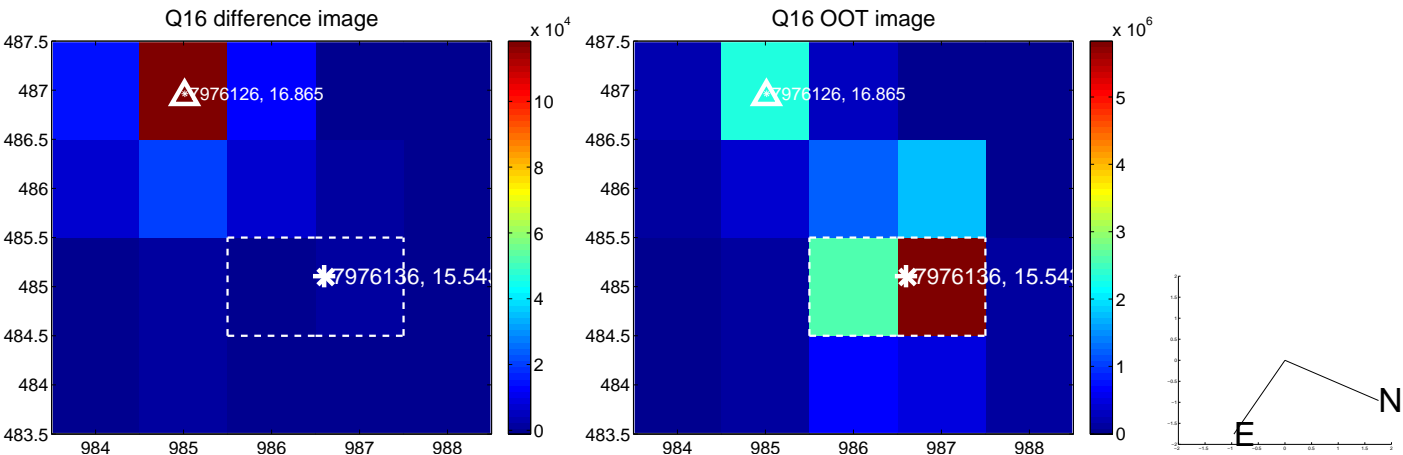
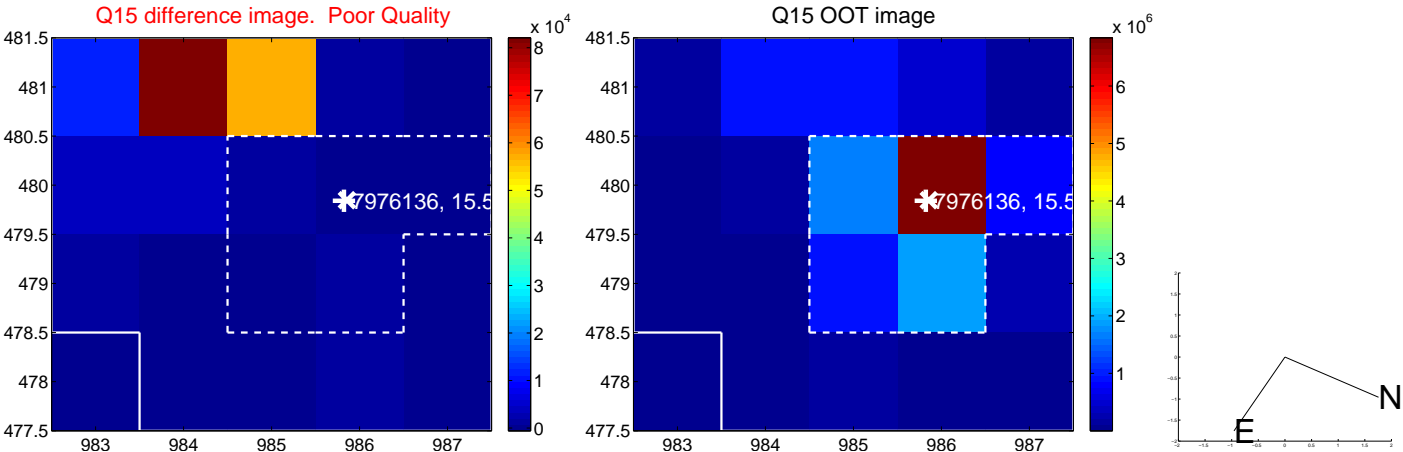
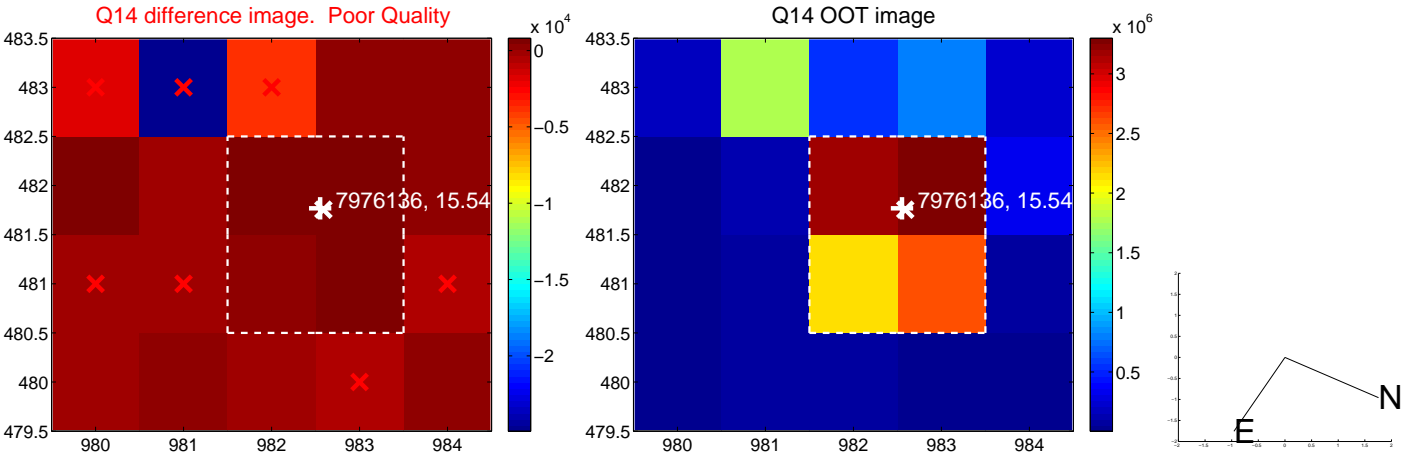
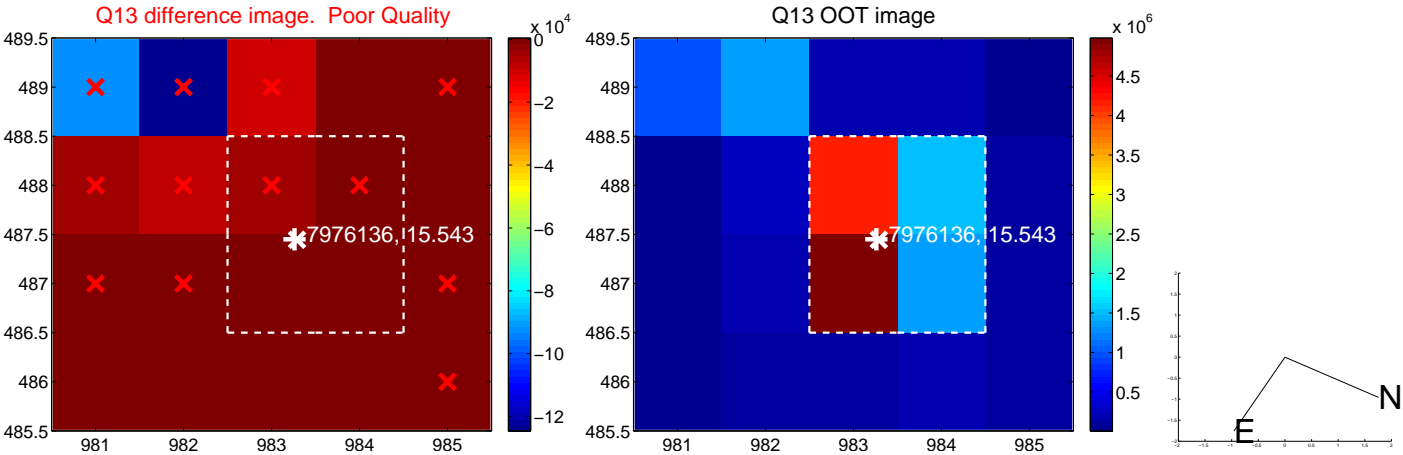
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



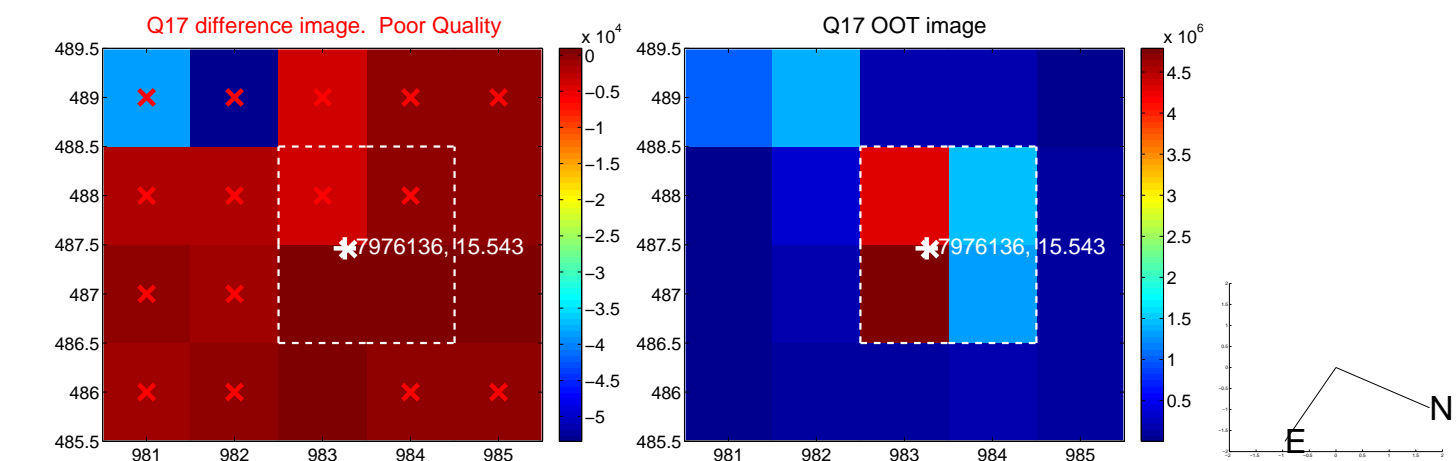
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



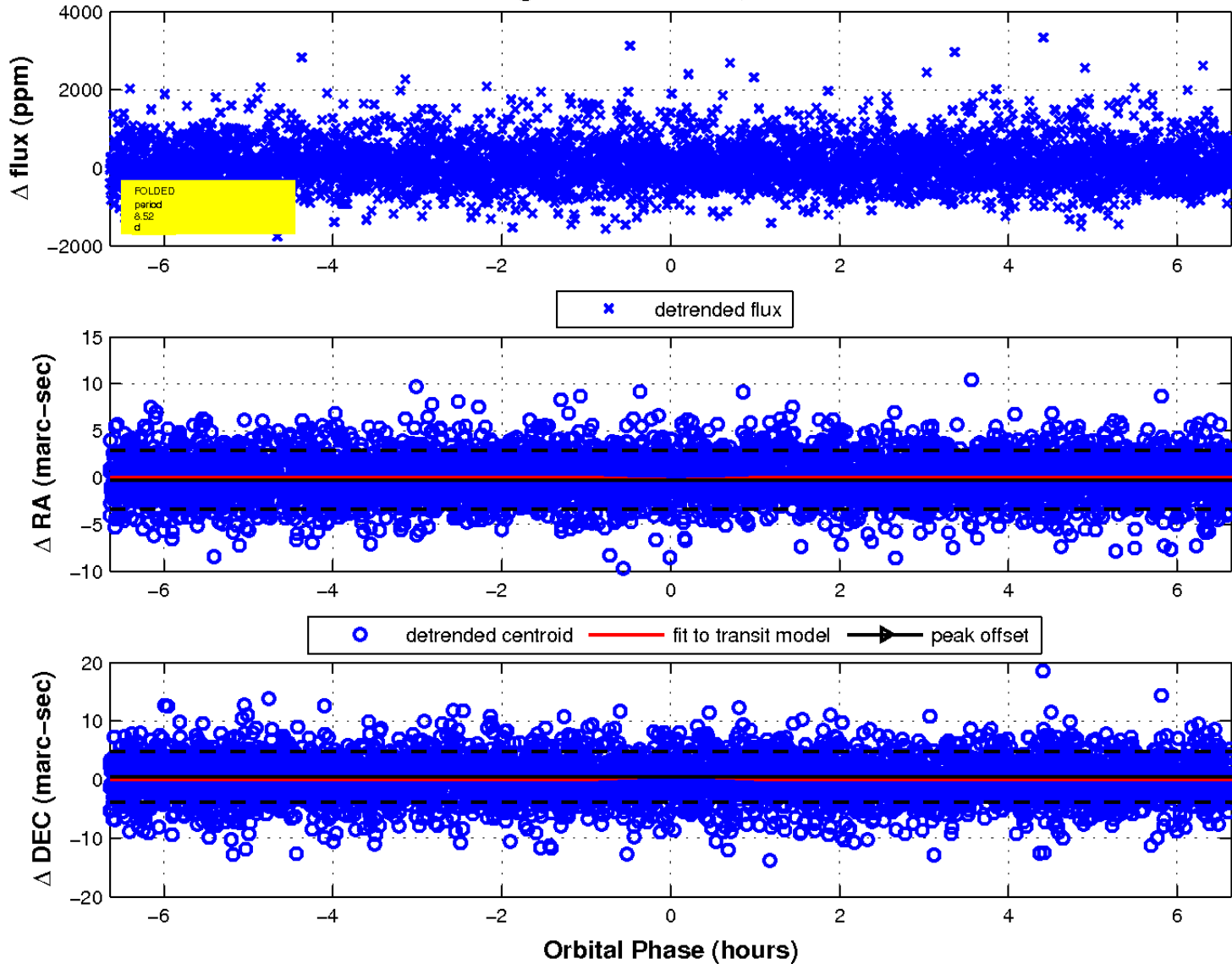
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

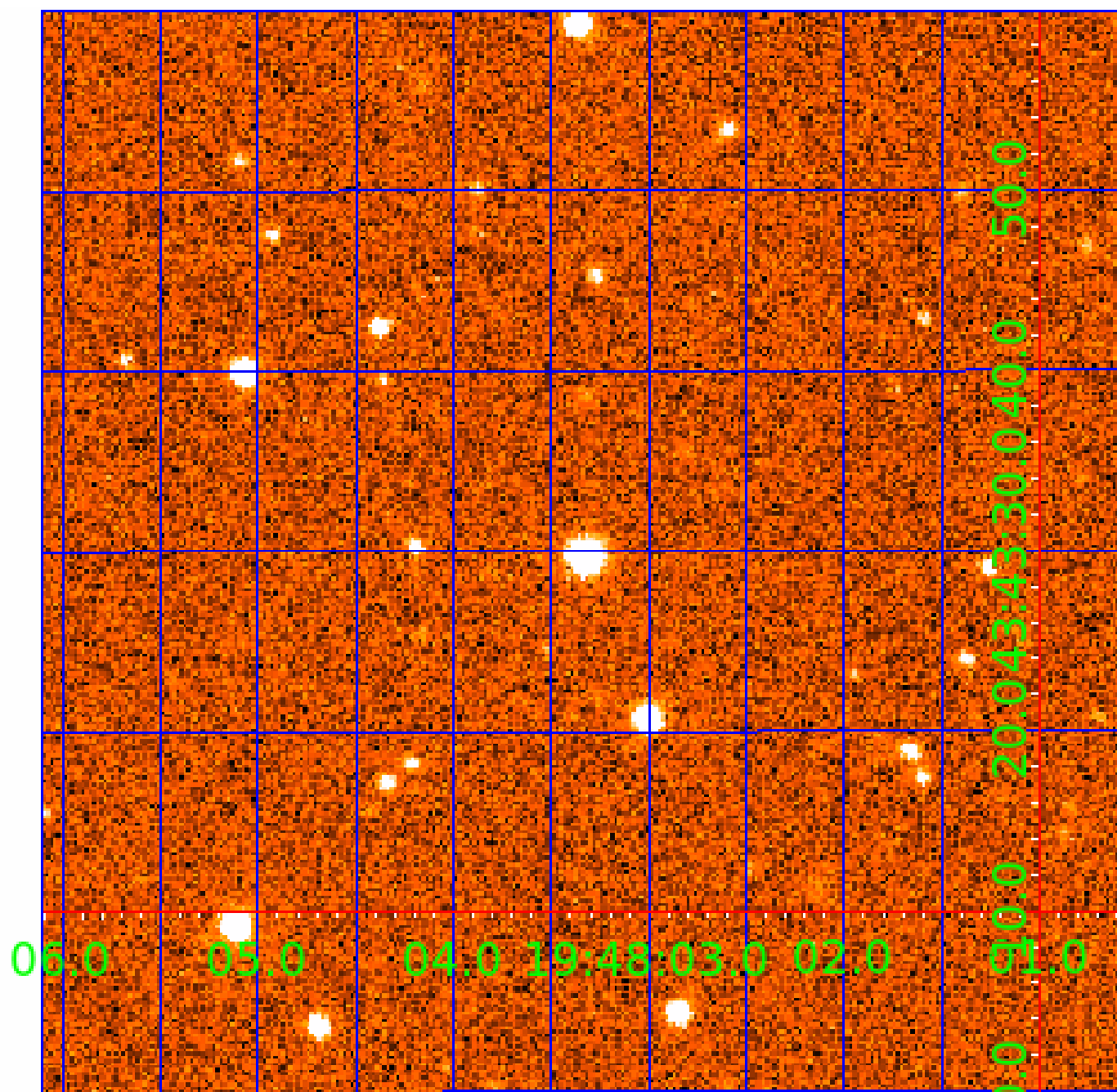


fluxWeightedCentroids, Planet 2 of 7



UKIRT Image

Declination



KIC 007976136

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
007976136-01	OBS	6945.01	0.655049	131.814383	59.3	4.828	11.4	11.4	1.01	6063	0.85	5281.21
007976136-02	OBS	No	8.523290	139.211373	2333.8	2.215	14.4	12.7	1.01	6063	8.64	172.57
007976136-03	OBS	No	2.638898	131.941117	357.0	1.273	13.5	4.4	1.01	6063	2.09	823.89
007976136-04	OBS	No	8.524035	139.705953	552.2	1.544	11.8	3.3	1.01	6063	2.62	172.55
007976136-05	OBS	No	8.516783	139.984758	1079.9	1.725	11.5	9.4	1.01	6063	3.61	172.74
007976136-06	OBS	No	18.860961	136.995460	2903.2	1.578	11.8	12.0	1.01	6063	8.65	59.84
007976136-07	OBS	No	6.310436	134.964120	1042.8	2.500	8.2	-1.0	1.01	6063	3.26	257.64

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007976136-01	OBS	FP	0.00	0	1	1	0	MOD_SEC_ALT—CENT_RESOLVED_OFFSET
007976136-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_RESOLVED_OFFSET
007976136-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—CENT_RESOLVED_OFFSET
007976136-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_RESOLVED_OFFSET
007976136-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_TER_ALT—MOD_POS_ALT—CENT_RESOLVED_OFFSET
007976136-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—CENT_RESOLVED_OFFSET
007976136-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

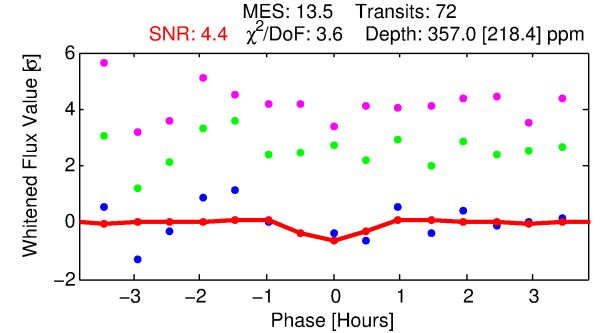
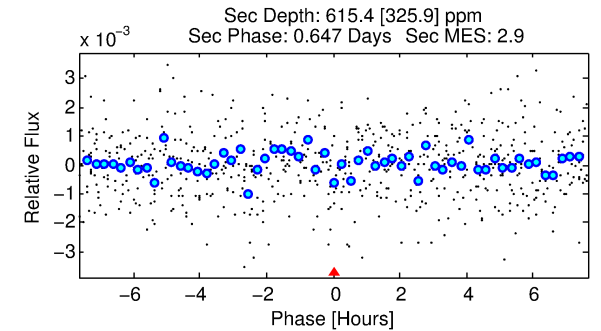
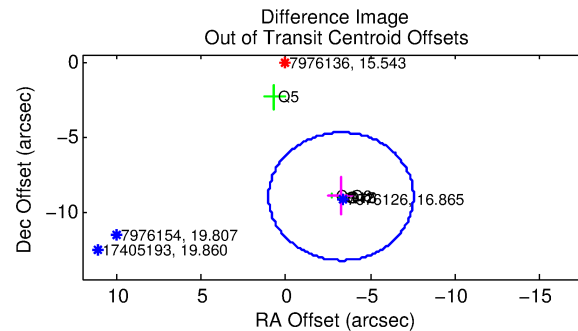
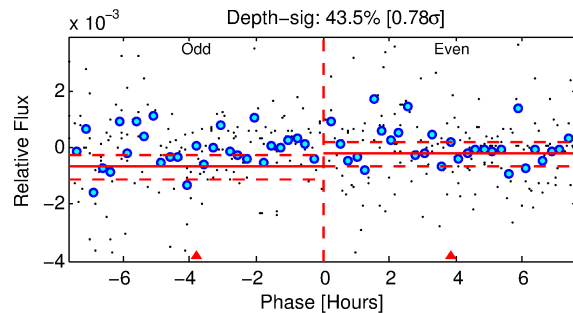
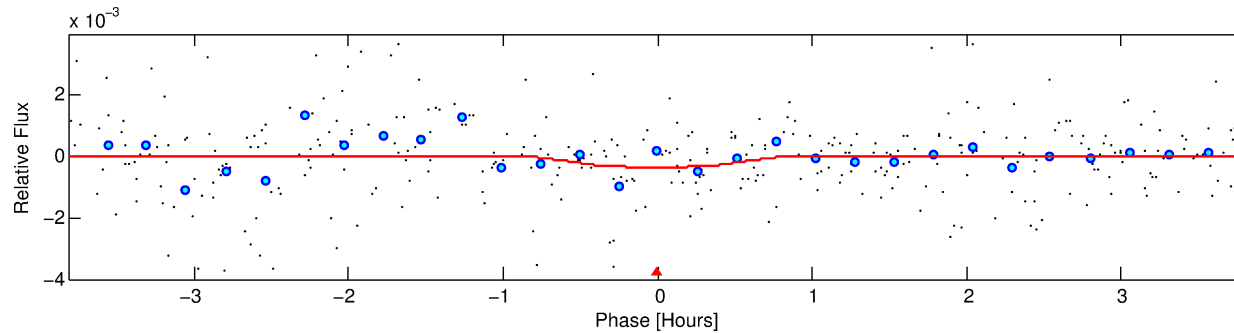
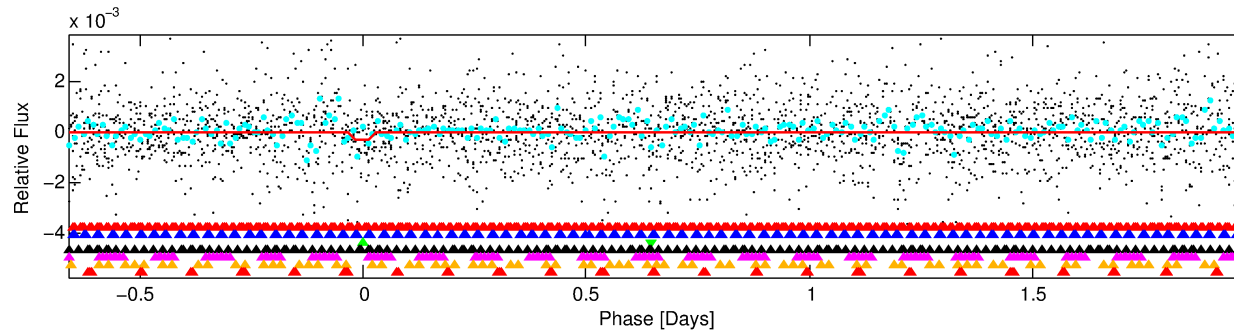
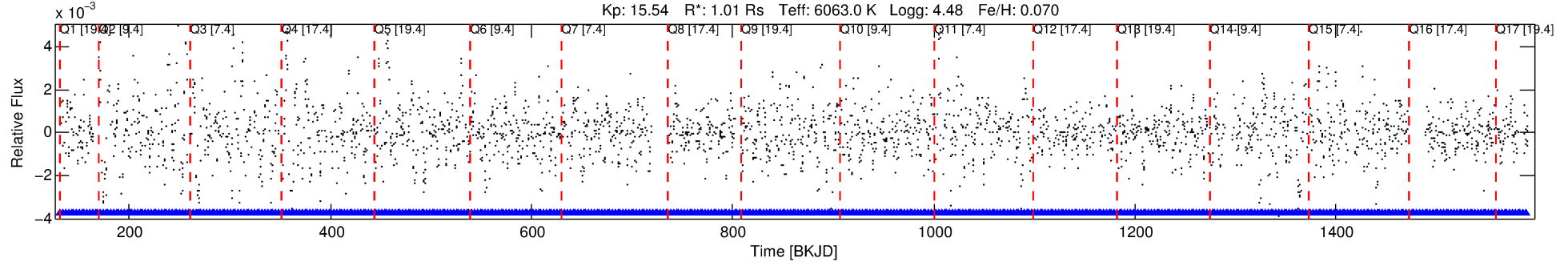
Ephemeris Match Information For 007976136-03

No Significant Match Found

DV One-Page Summary

KIC: 7976136 Candidate: 3 of 7 Period: 2.639 d
KOI: K06945 Corr: No Ephemeris Match

Kp: 15.54 R*: 1.01 Rs Teff: 6063.0 K Logg: 4.48 Fe/H: 0.070



DV Fit Results:

Period = 2.63890 [0.00006] d
Epoch = 131.9411 [0.0103] BKJD
Rp/R* = 0.0189 [0.0625]
a/R* = 10.91 [169.06]
b = 0.75 [9.16]
Seff = 823.89 [310.18]
Teq = 1366 [129] K
Rp = 2.09 [6.93] Re
a = 0.0388 [0.0093] AU
Ag = 116.71 [774.62] [0.15σ]
Teffp = 6942 [11506] K [0.48σ]

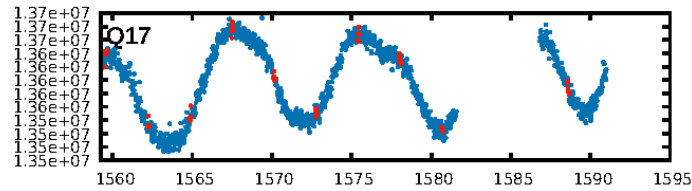
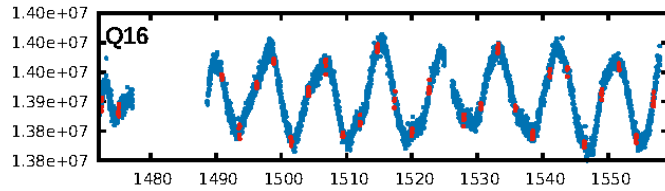
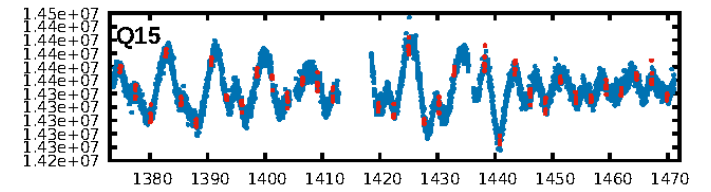
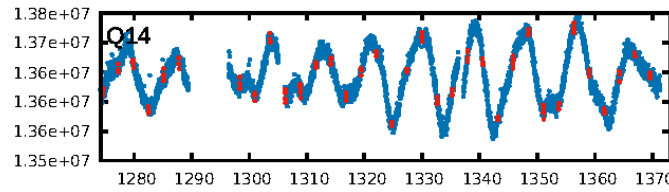
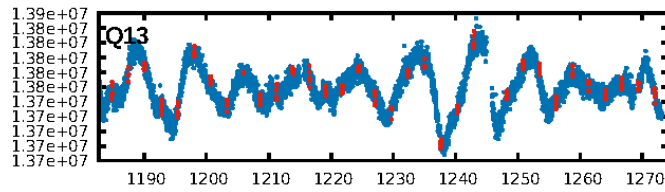
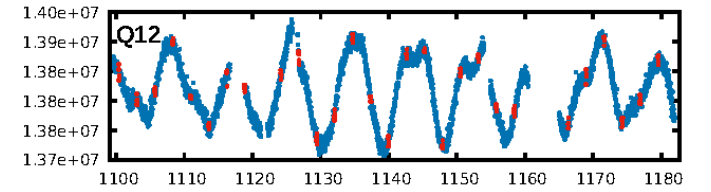
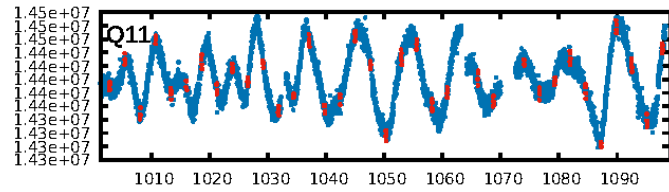
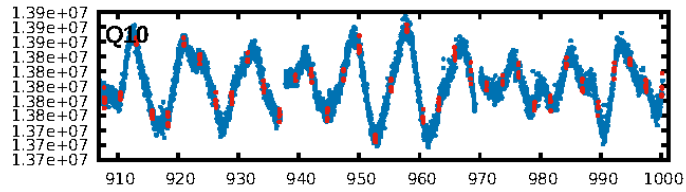
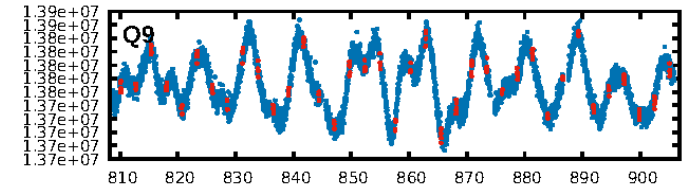
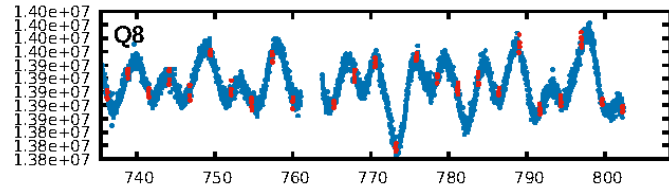
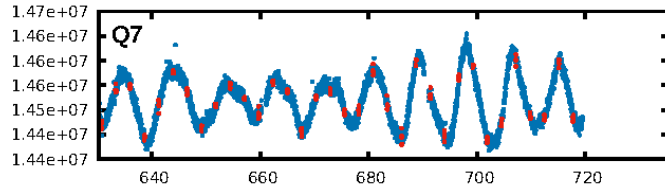
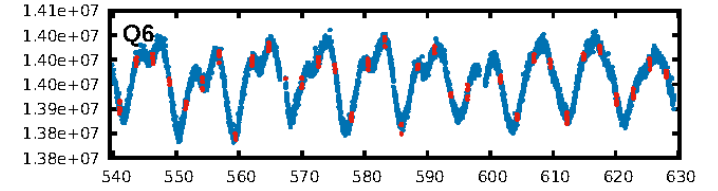
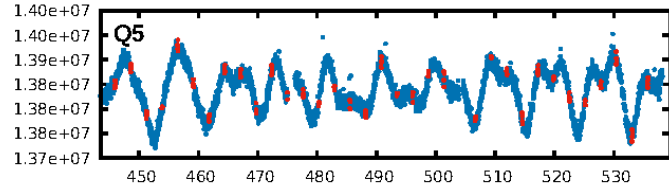
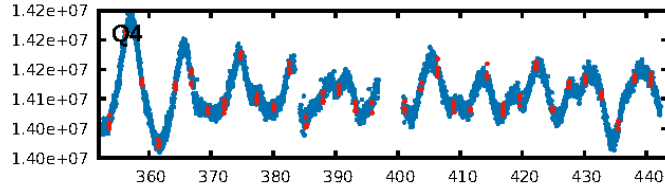
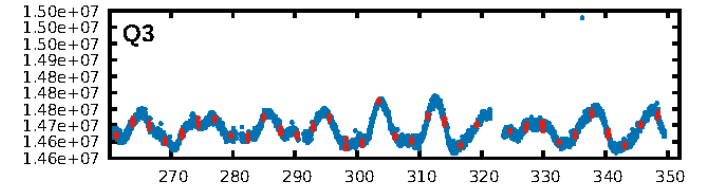
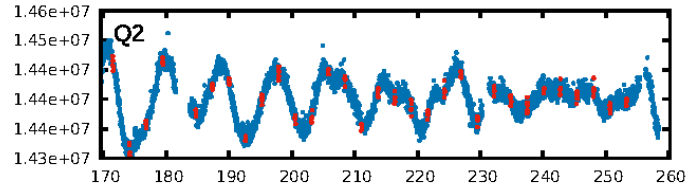
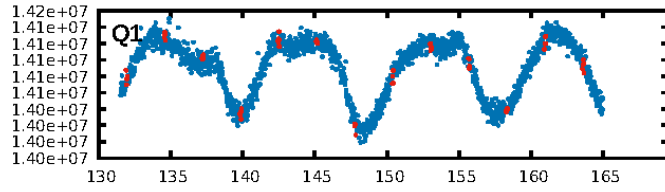
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [9.54σ]
LongPeriod-sig: 100.0% [31.41σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 98.8%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [67/67]
GhostDiagnostic-chr: 1.647
Centroid-sig: 68.4%
Centroid-so: 0.321 arcsec [0.35σ]
OotOffset-rm: 9.566 arcsec [6.72σ]
KicOffset-rm: 9.641 arcsec [8.47σ]
OotOffset-st: 0/0/4/1 [5]
KicOffset-st: 0/0/4/1 [5]
DiffImageQuality-fgm: 0.40 [2/5]
DiffImageOverlap-fno: 0.18 [3/17]

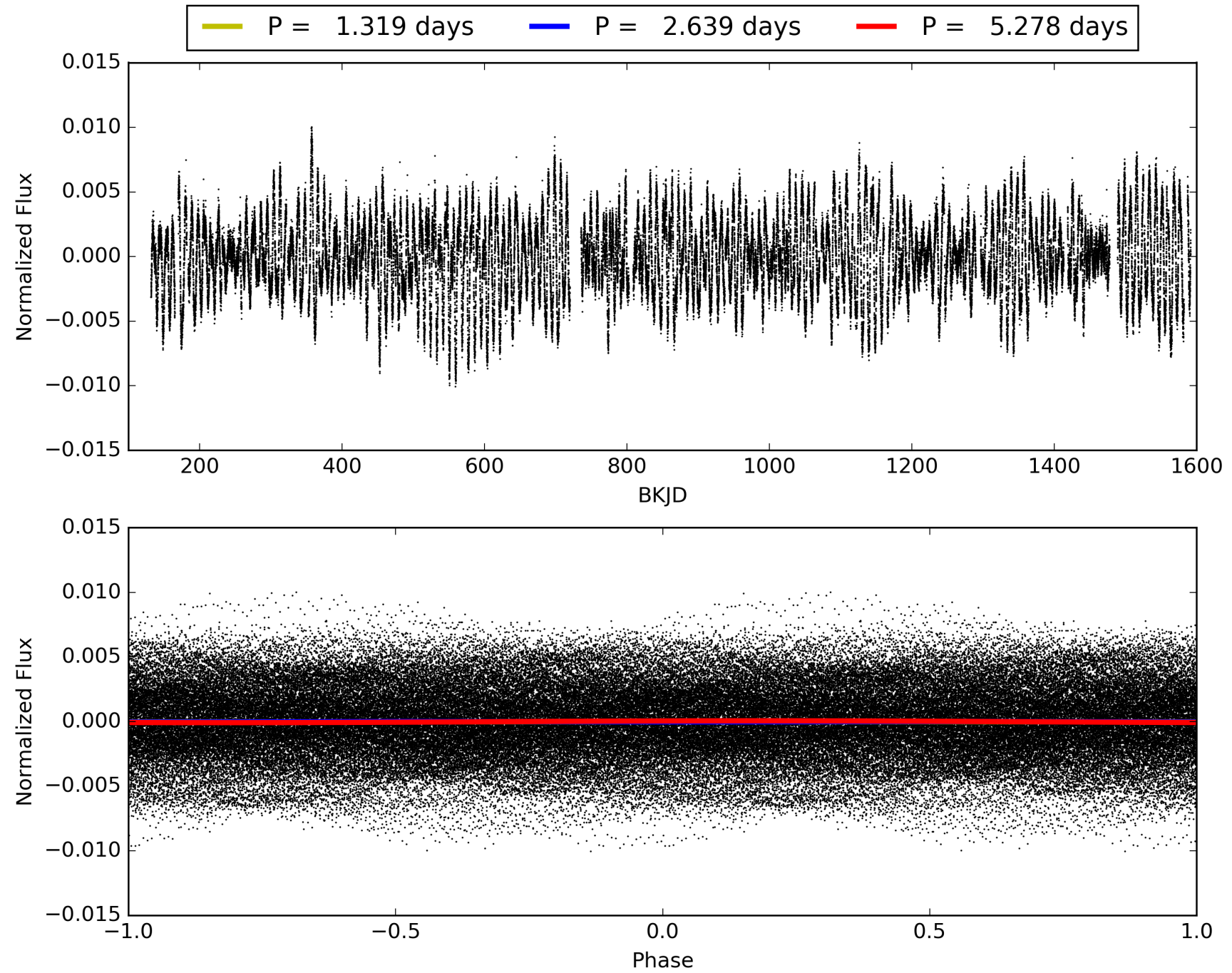
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 06:03:19 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 007976136-03, PDC Light Curves

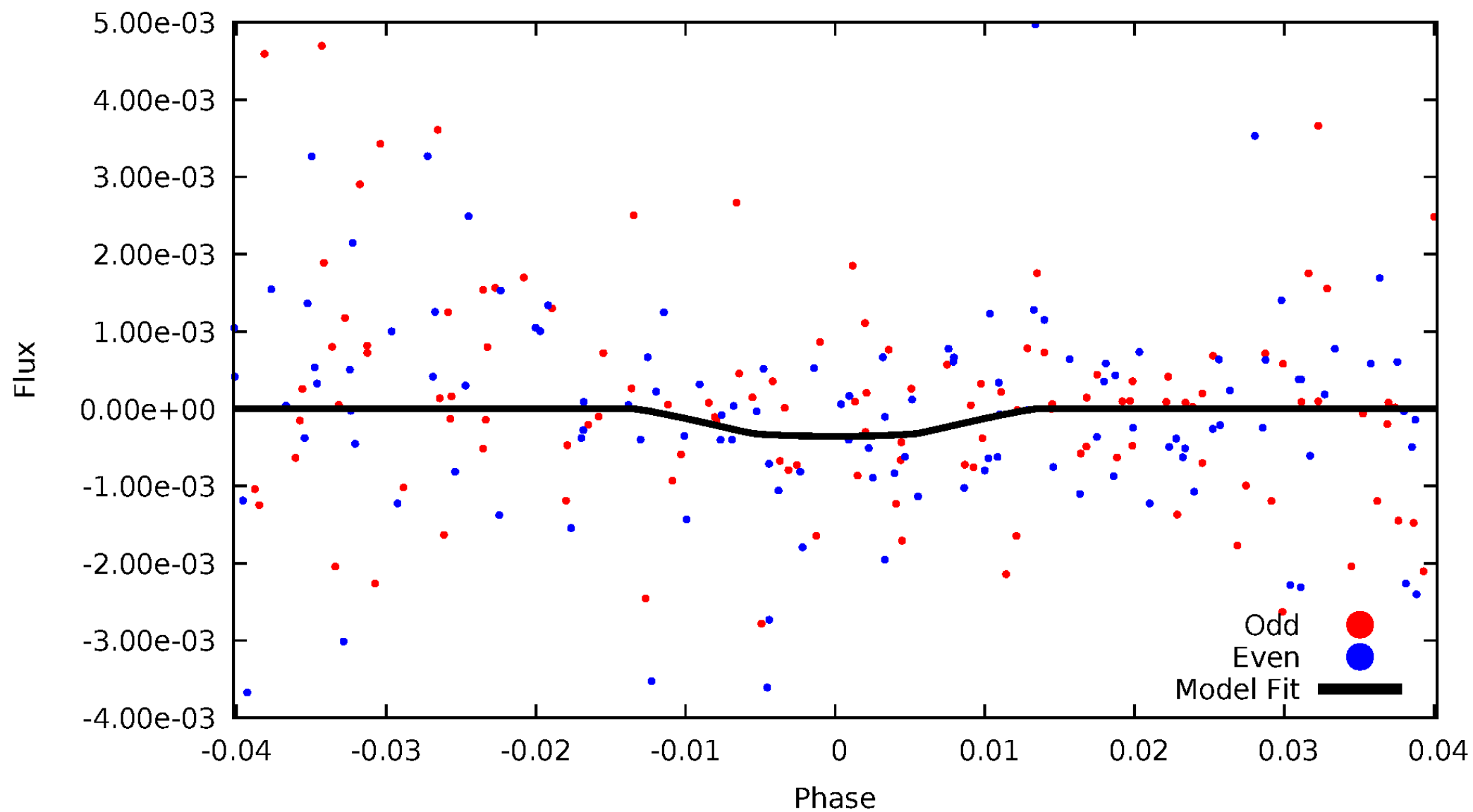


TCE 007976136-03



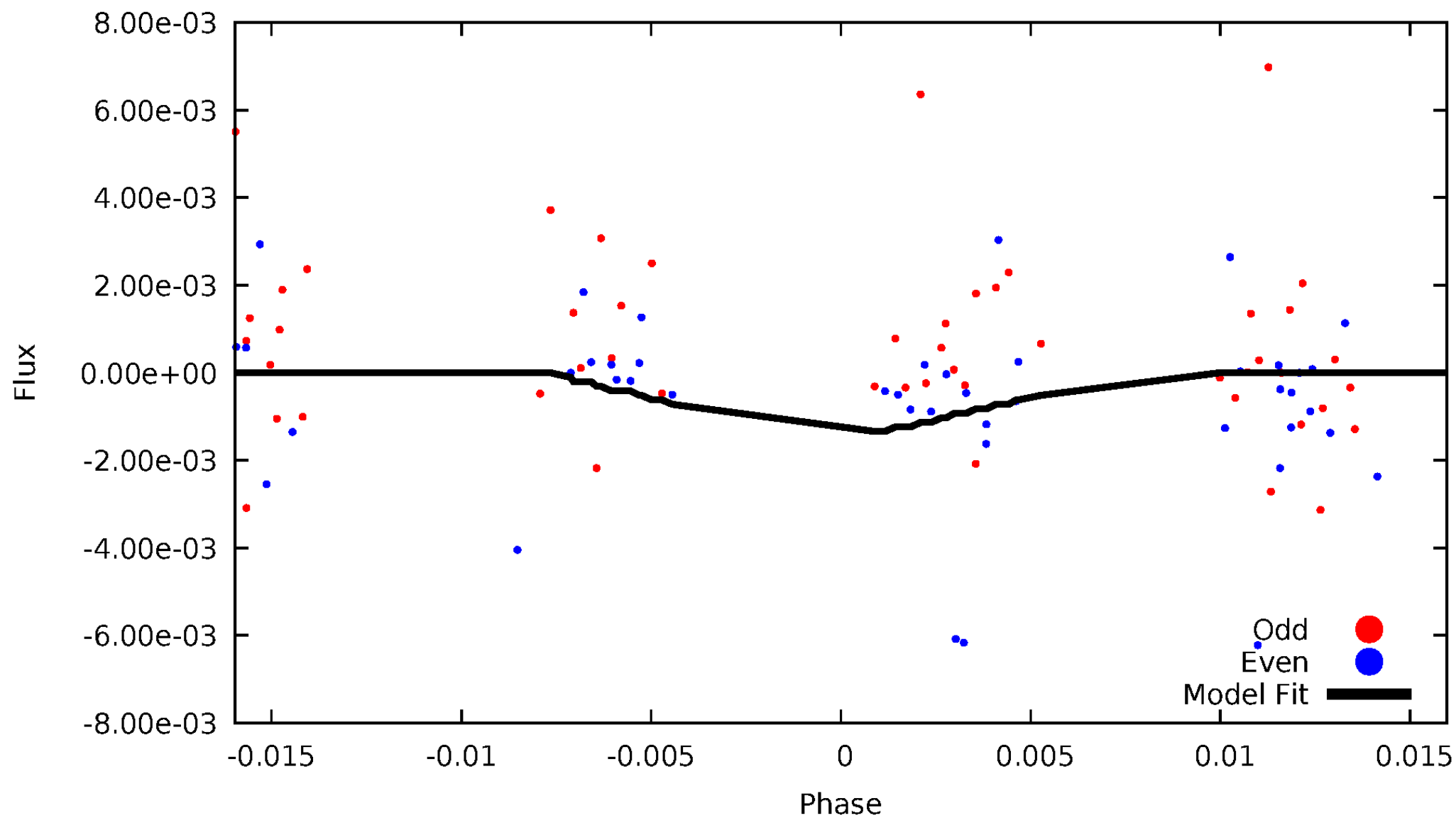
DV Odd/Even

TCE 007976136-03



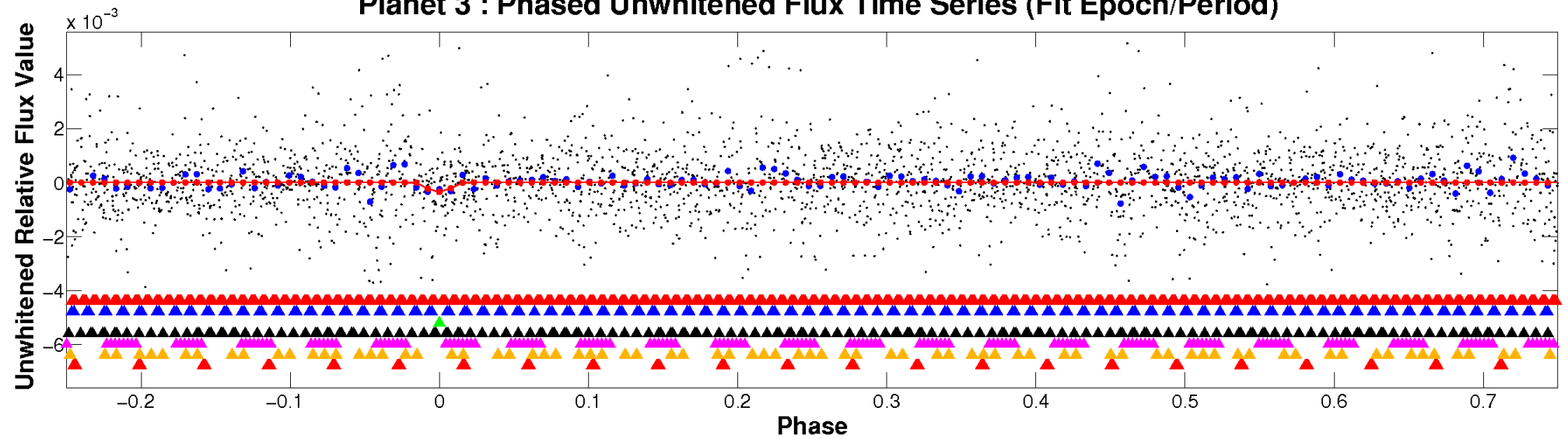
ALT Odd/Even

TCE 007976136-03

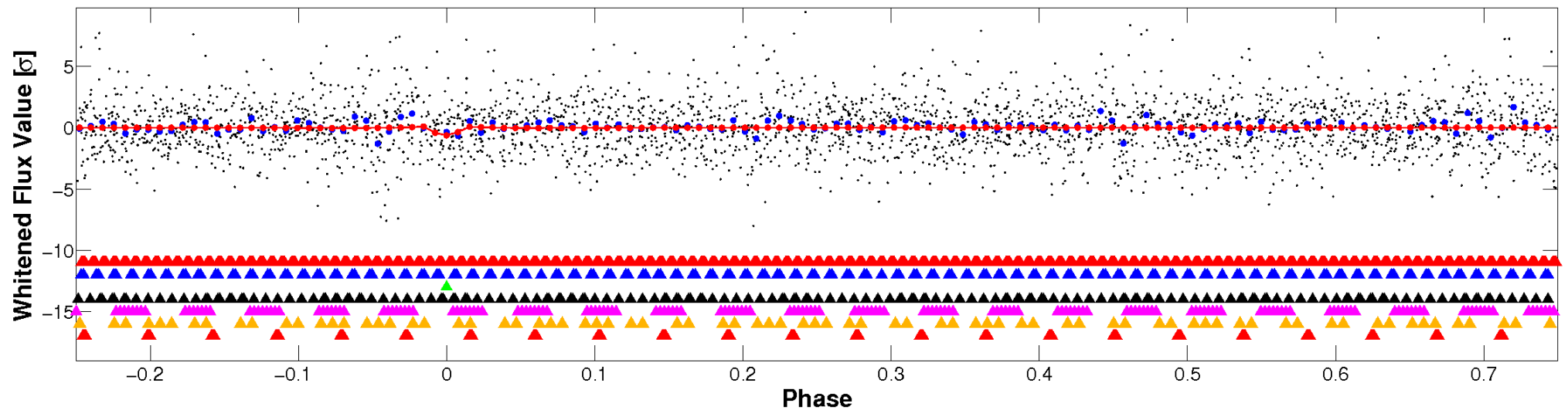


Non-Whitened Vs. Whitened Light Curve

Planet 3 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

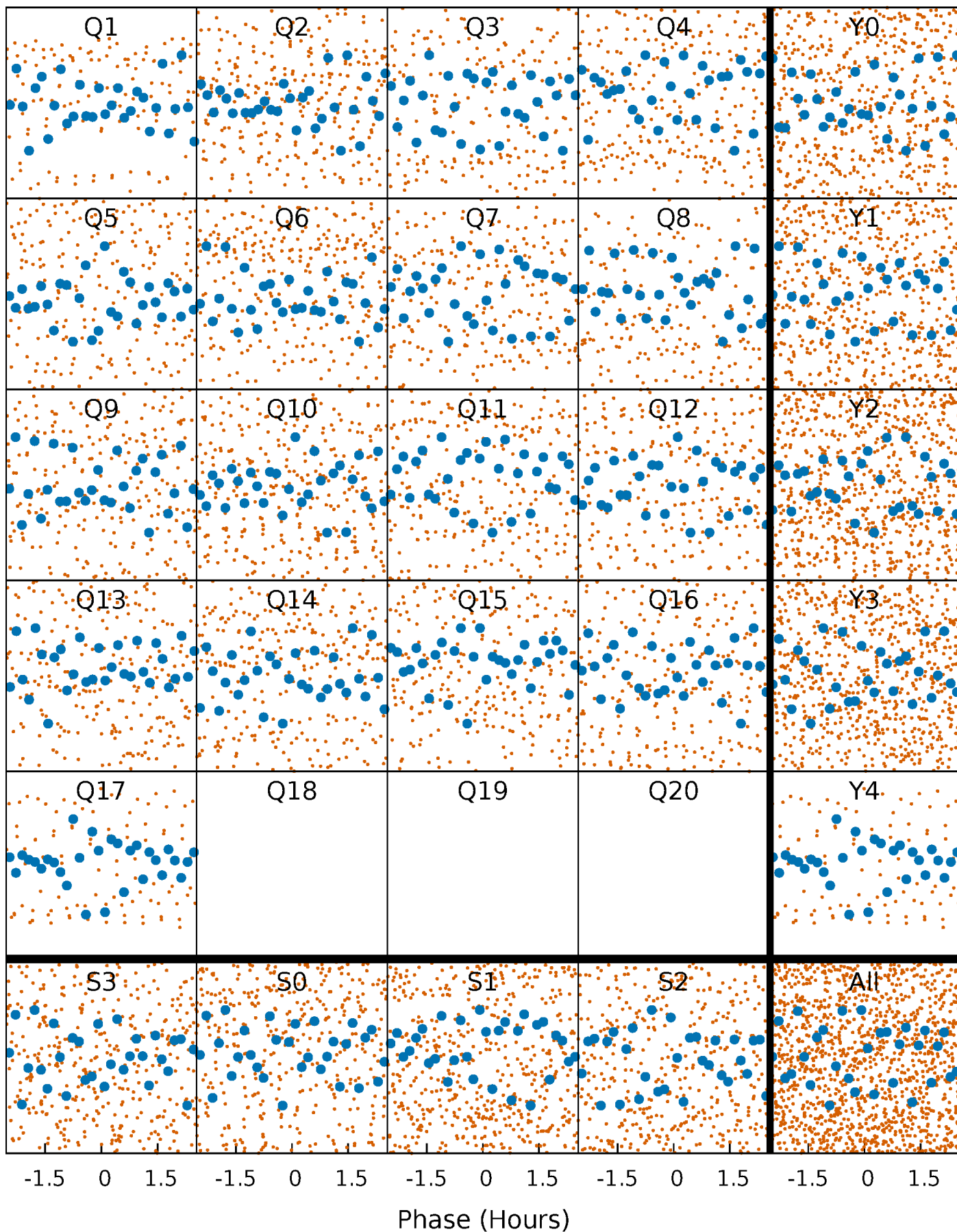


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



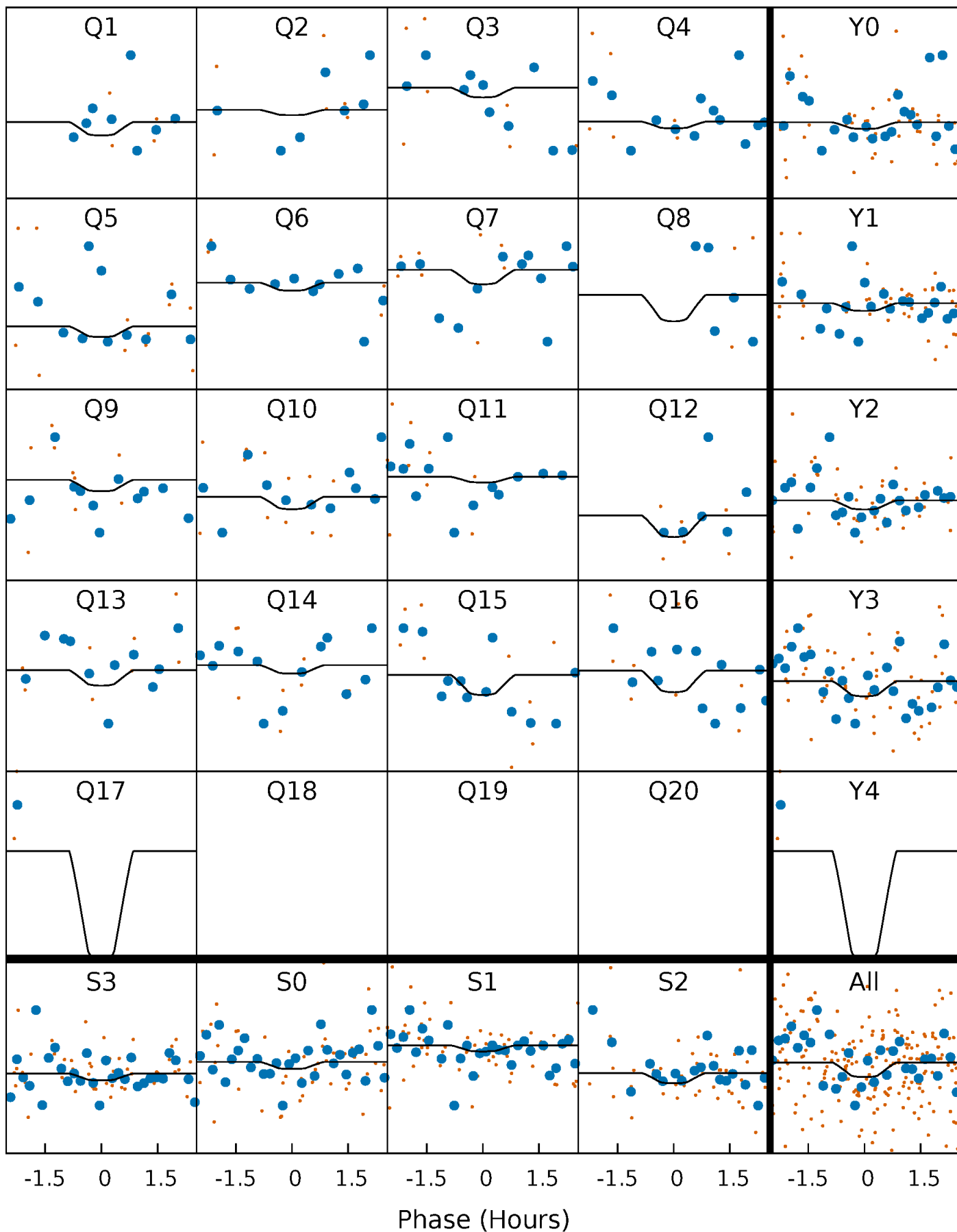
PDC Quarter-Phased Transit Curves

TCE 007976136-03 P= 2.638898 Days $T_0=131.941117$ (BKJD)



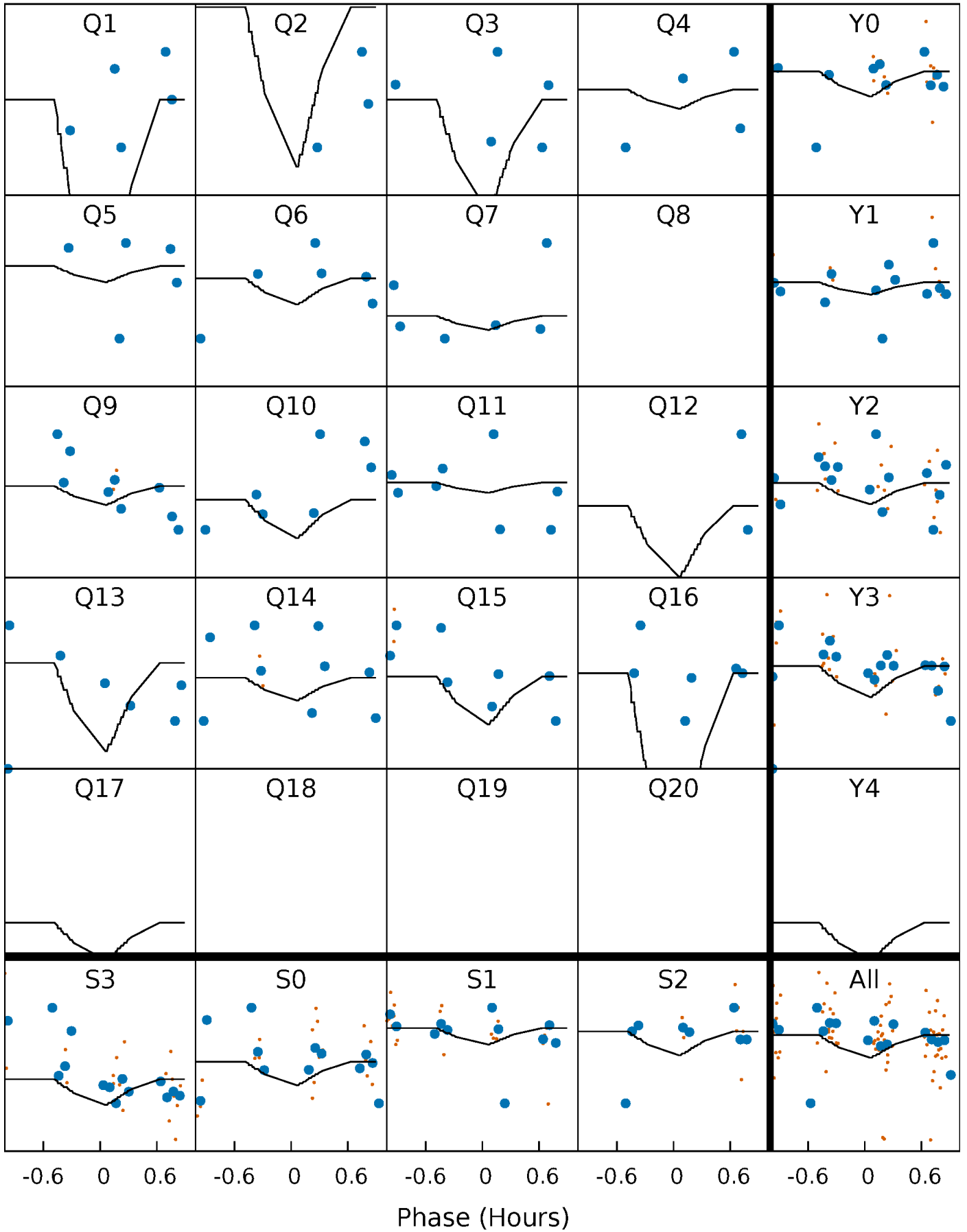
DV Quarter-Phased Transit Curves

TCE 007976136-03 P= 2.638898 Days $T_0=131.941117$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

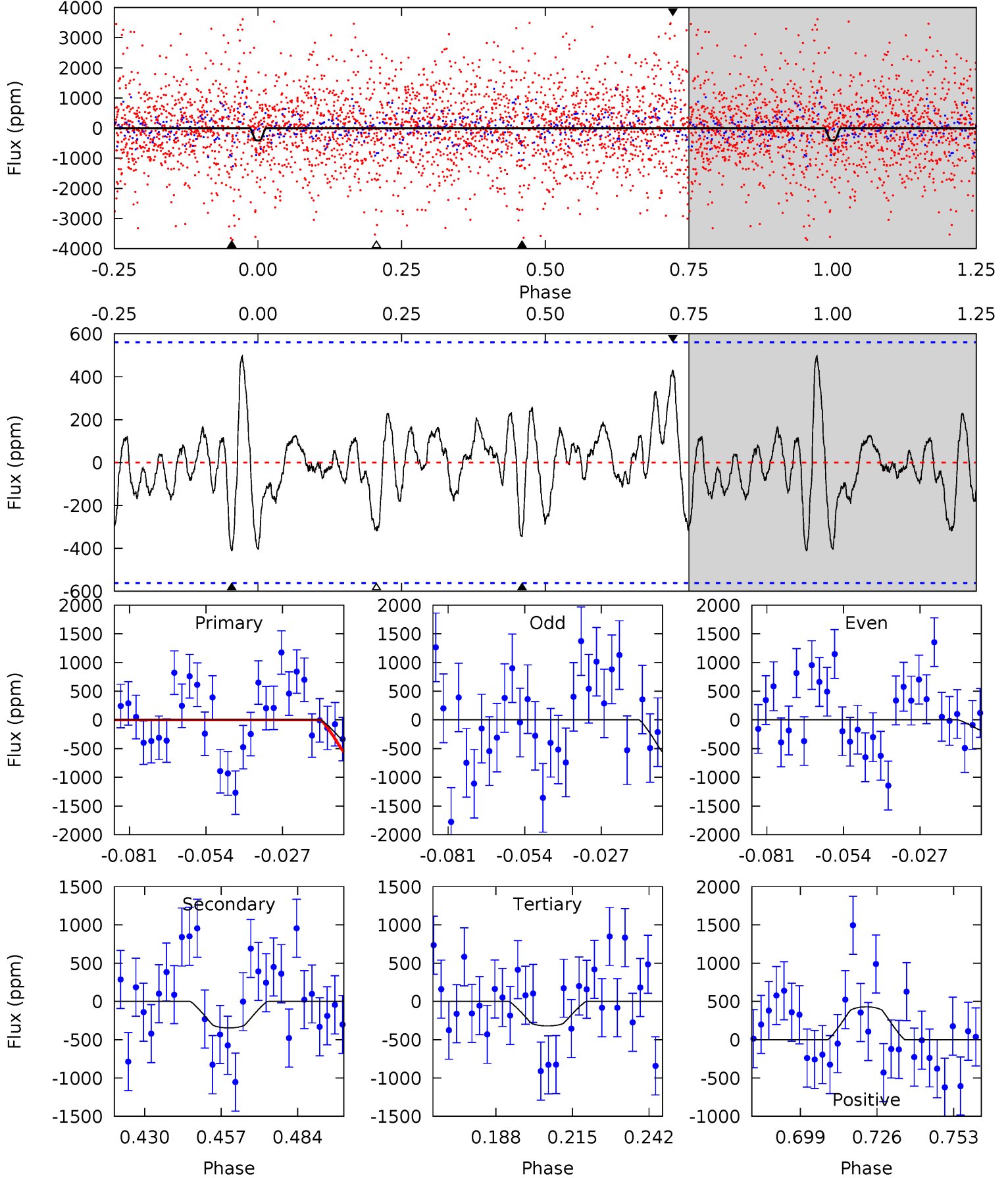
TCE 007976136-03 P= 2.638838 Days $T_0=131.922143$ (BKJD)



DV Model-Shift Uniqueness Test

007976136-03, P = 2.638898 Days, E = 131.941117 Days

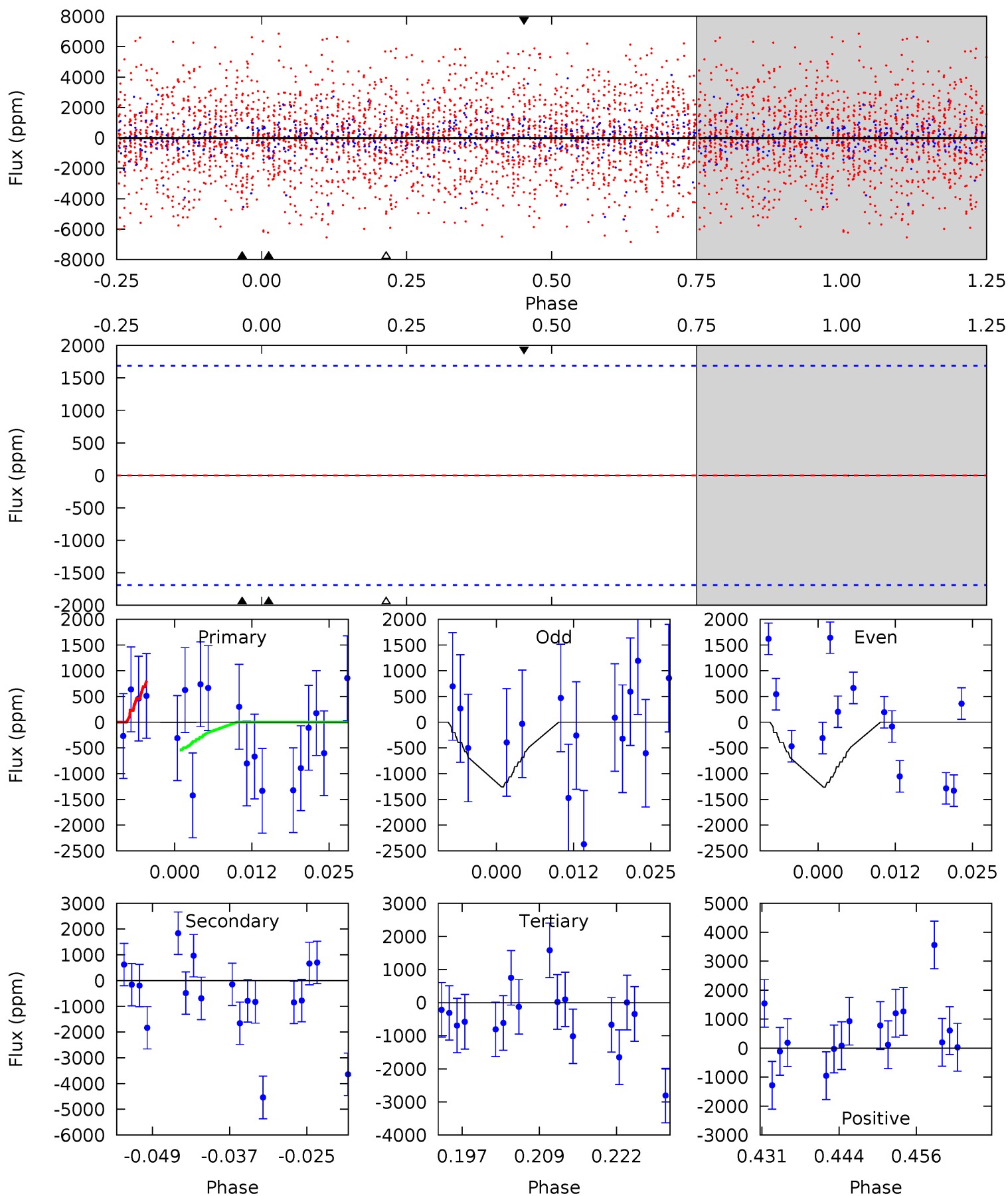
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.54	2.98	2.76	3.70	4.83	2.21	1.13	0.79	-0.16	0.22	-0.72	1.76	1.24	0.55	1.59



Alt Model-Shift Uniqueness Test

007976136-03, P = 2.638838 Days, E = 131.922143 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	4.99	2.50	0.00	0	0	0	0	0.00	-0.06	0.50	0.38



Stellar Parameters For KIC 007976136

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6063^{+169}_{-211}	$4.476^{+0.048}_{-0.192}$	$0.070^{+0.200}_{-0.350}$	$1.012^{+0.286}_{-0.114}$	$1.117^{+0.120}_{-0.174}$	$1.519^{+0.379}_{-0.737}$
	+3%/-3%	+1%/-4%	+286%/-500%	+28%/-11%	+11%/-16%	+25%/-49%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 007976136-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-346 ± 116	$5.83^{+6.03}_{-4.21}$	1953^{+132}_{-95}	3899^{+2919}_{-835}	$7.466^{+91.777}_{-5.647}$
Alt.	-1 ± 338	$6.81^{+5.96}_{-4.61}$	1947^{+118}_{-91}	-2342^{+6447}_{-1824}	$0.116^{+9.501}_{-10.091}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming A=0.3)

A_{obs} = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

DV Centroid Data

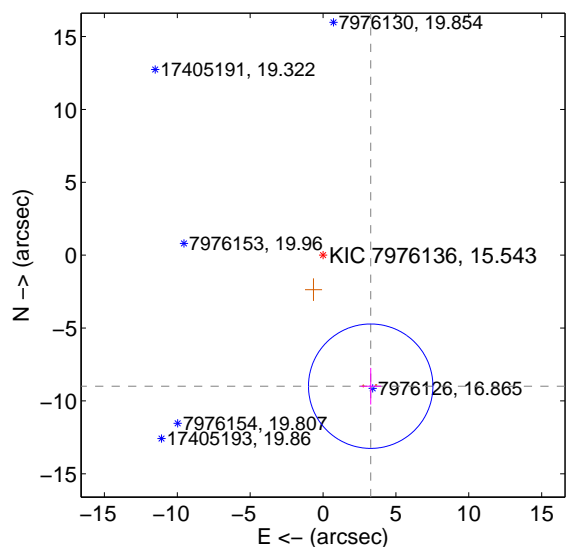
Supplemental centroid analysis for 007976136-03. Kepler magnitude: 15.54. Transit SNR 4.43

There are 2 quarters with good PRF difference image offsets

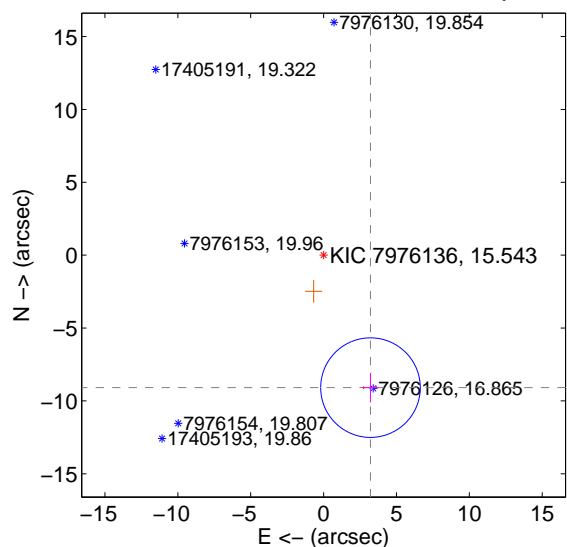
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	9.566 ± 1.423	6.72	-3.270 ± 0.716	-8.990 ± 1.257
PRF-fit source offset from KIC position	9.641 ± 1.139	8.47	-3.218 ± 0.577	-9.088 ± 1.010
photometric centroid source offset	0.32 ± 0.92	0.35	0.01 ± 0.64	-0.32 ± 0.92

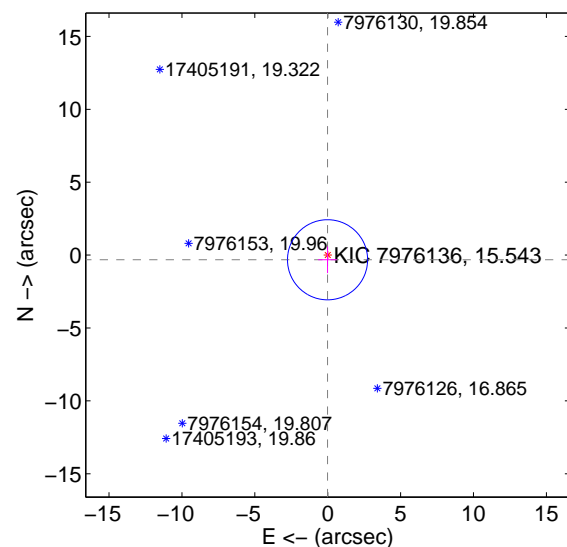
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

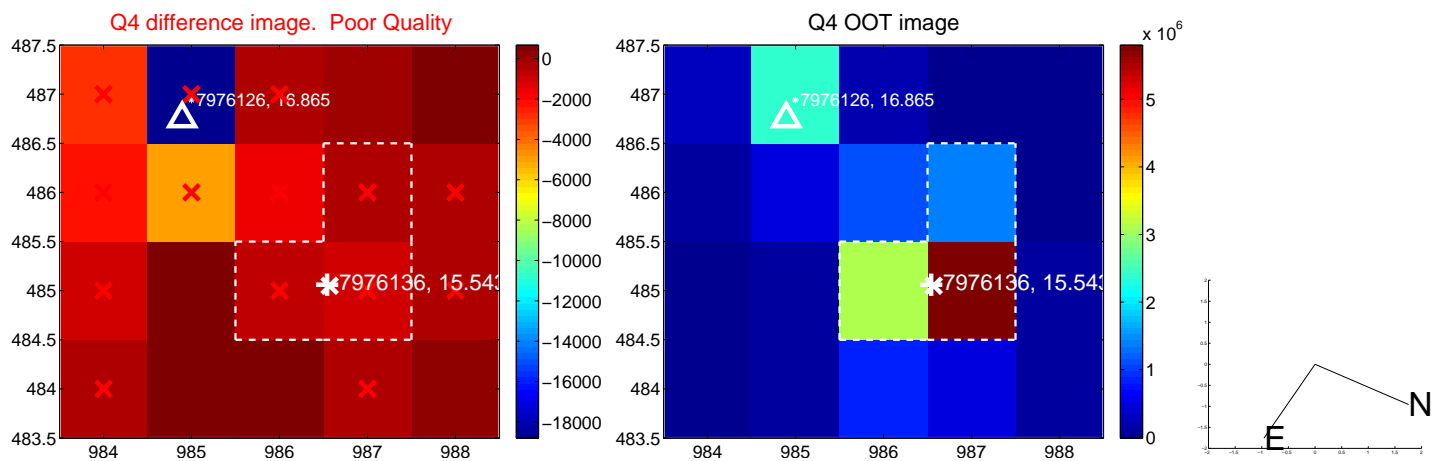
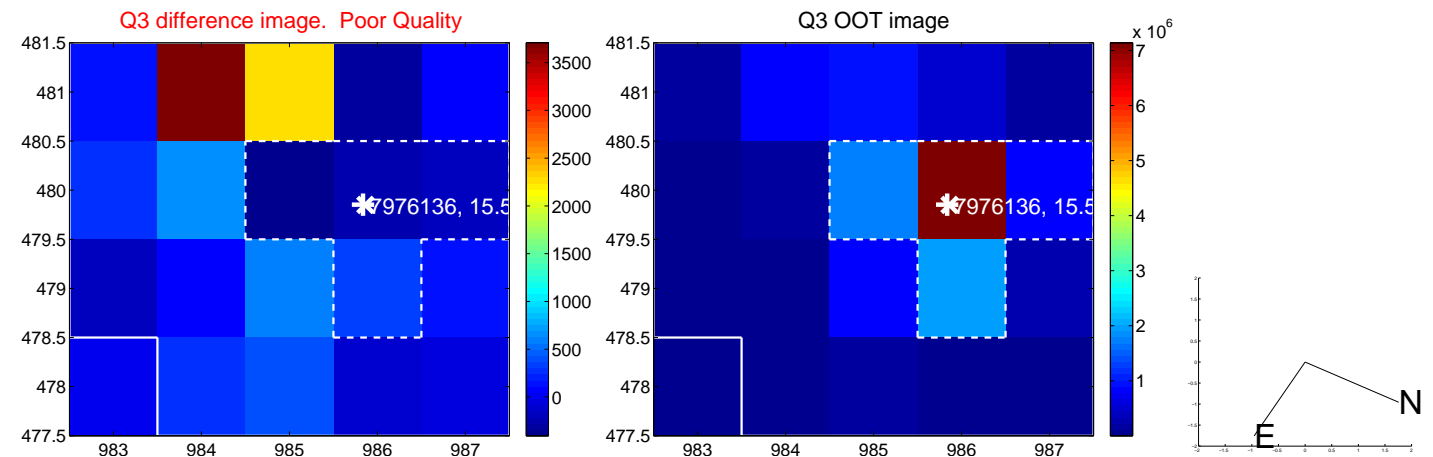
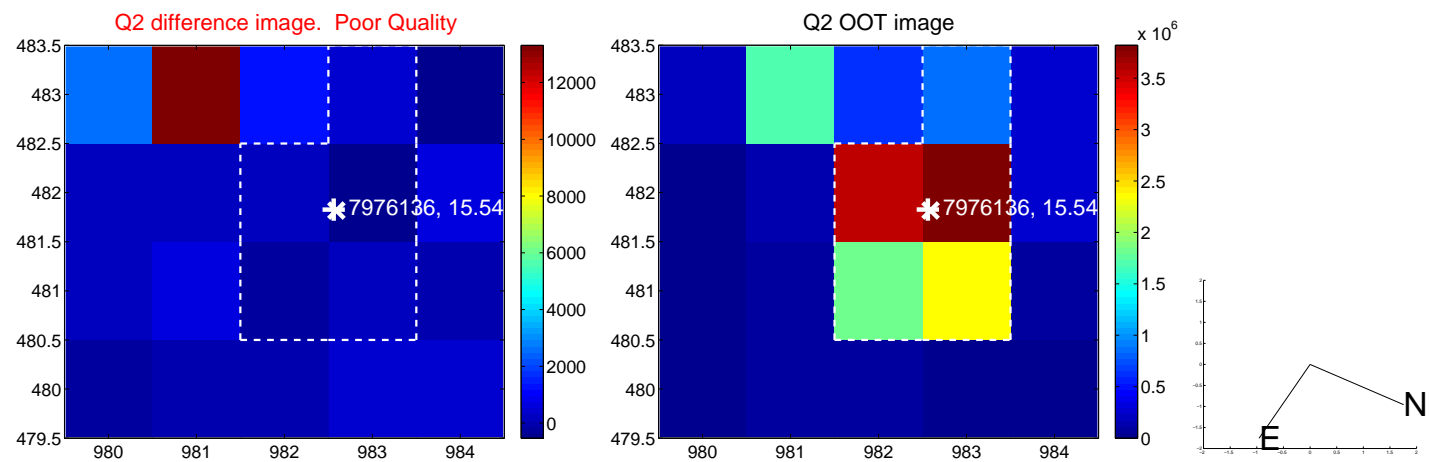
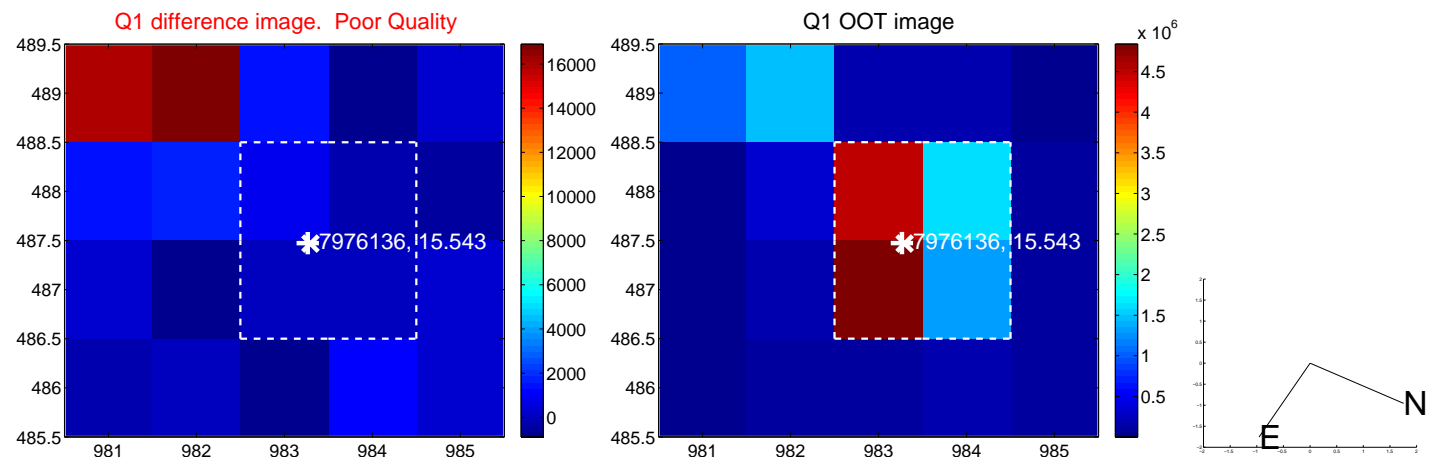


offset from photometric centroids

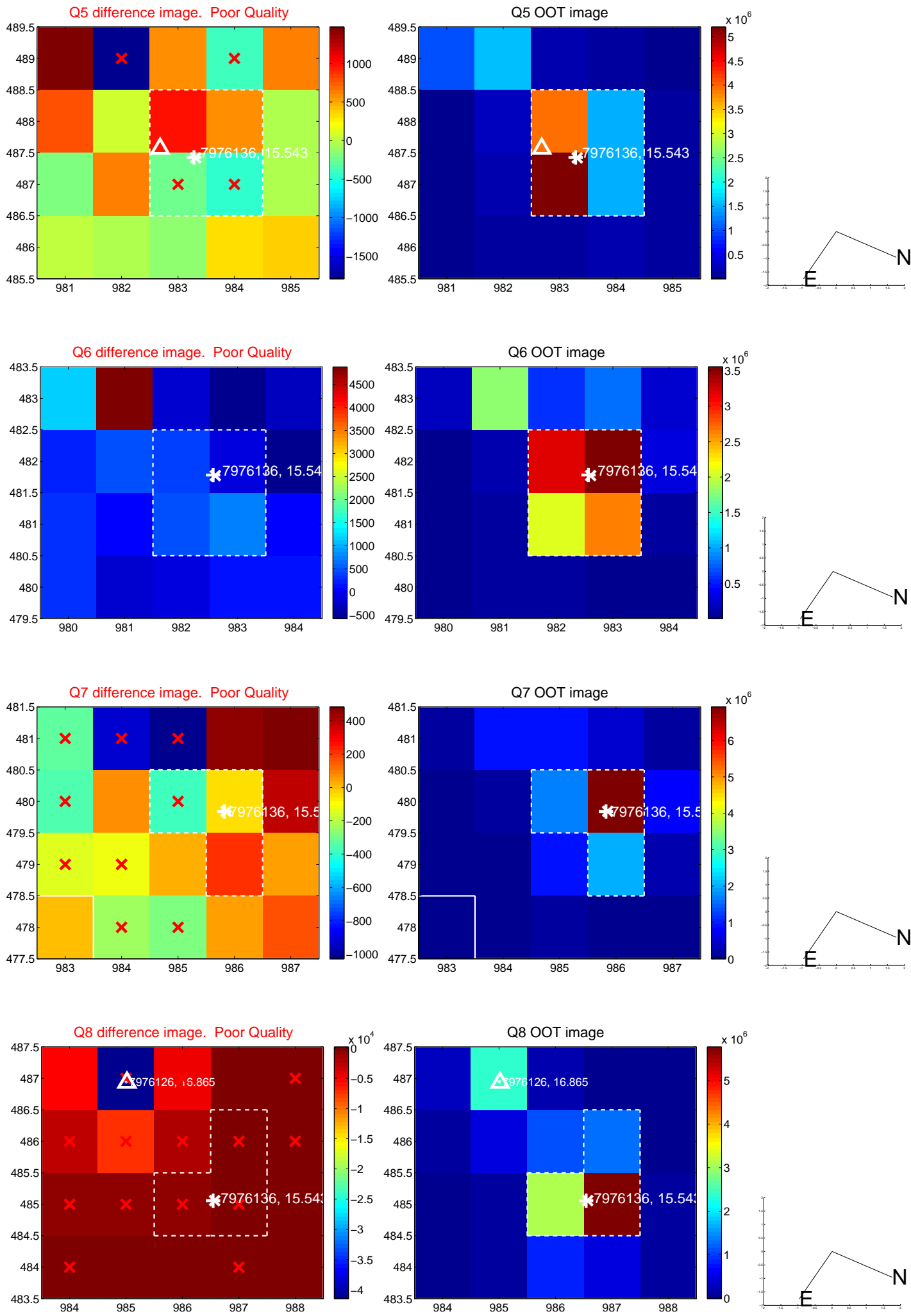


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

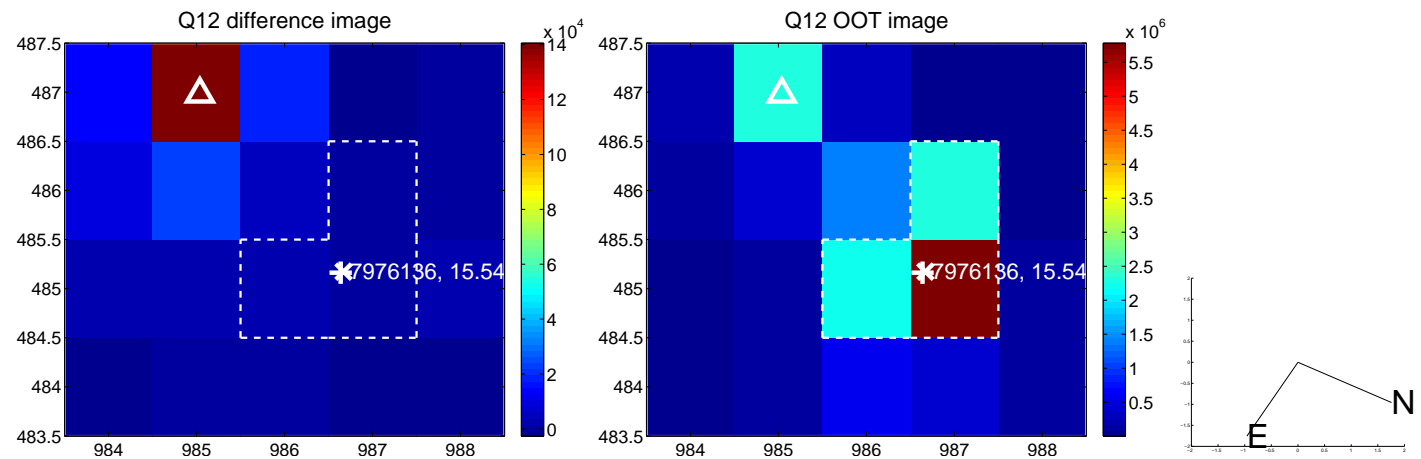
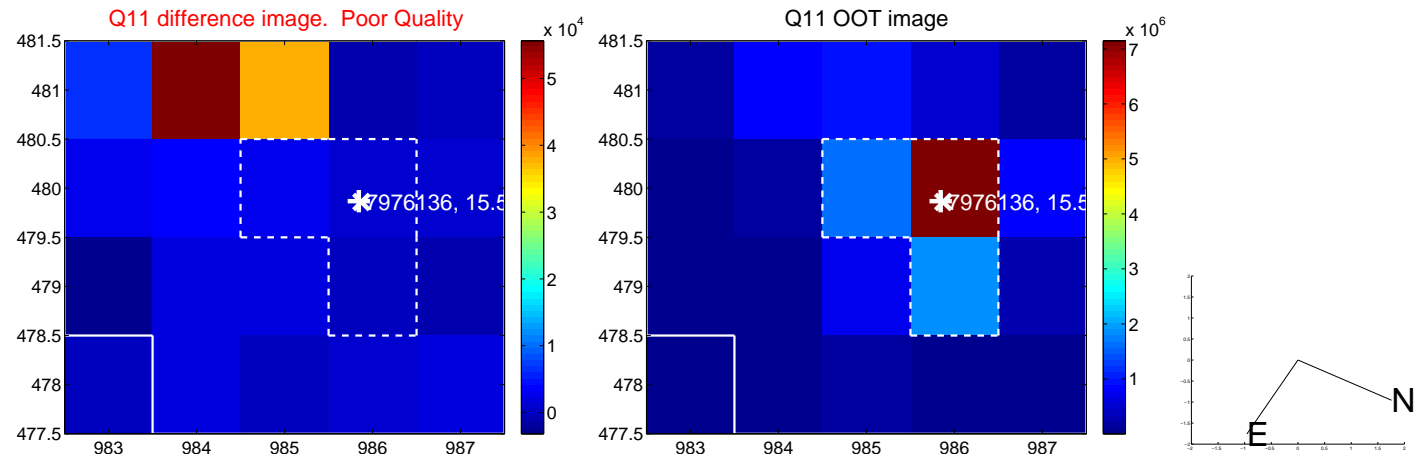
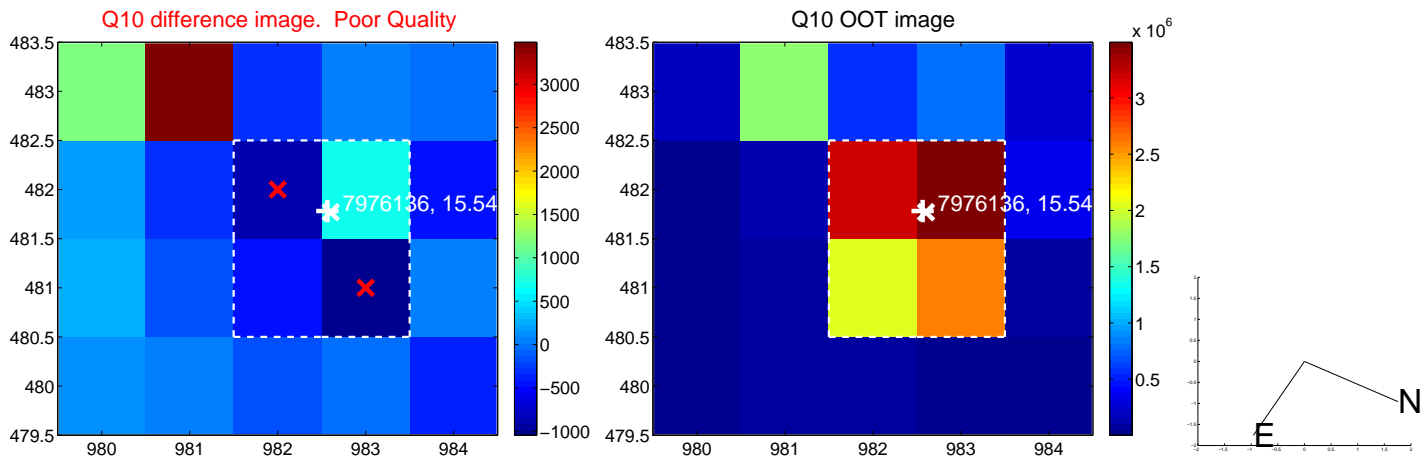
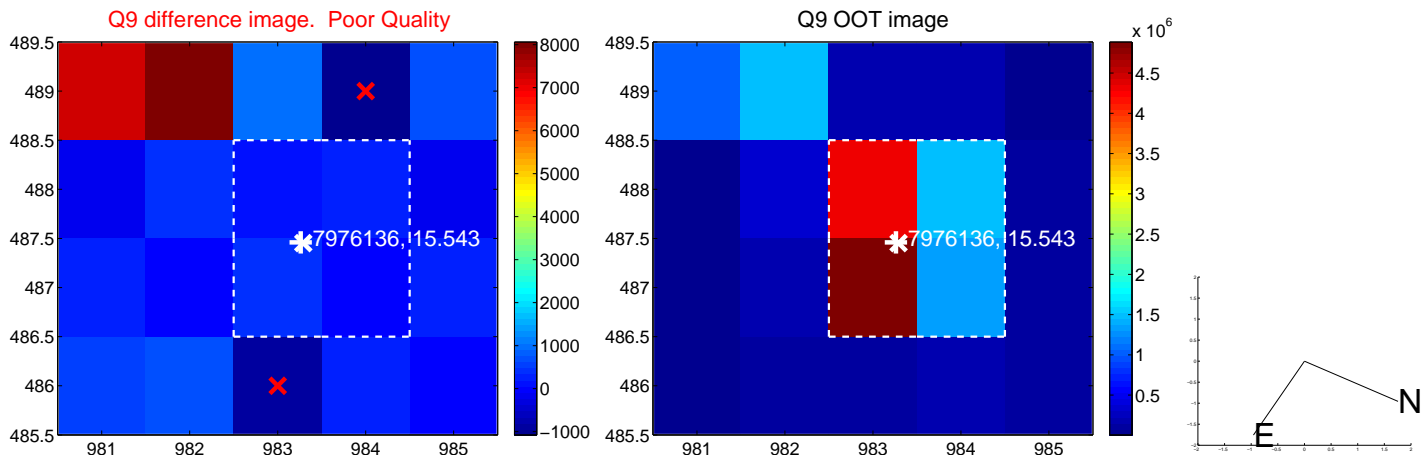
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



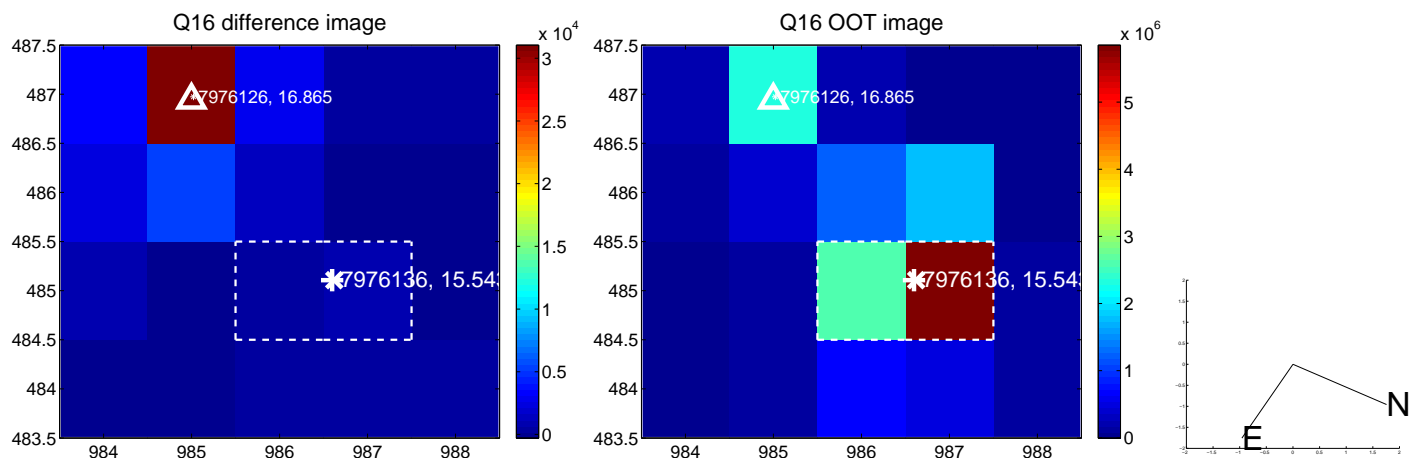
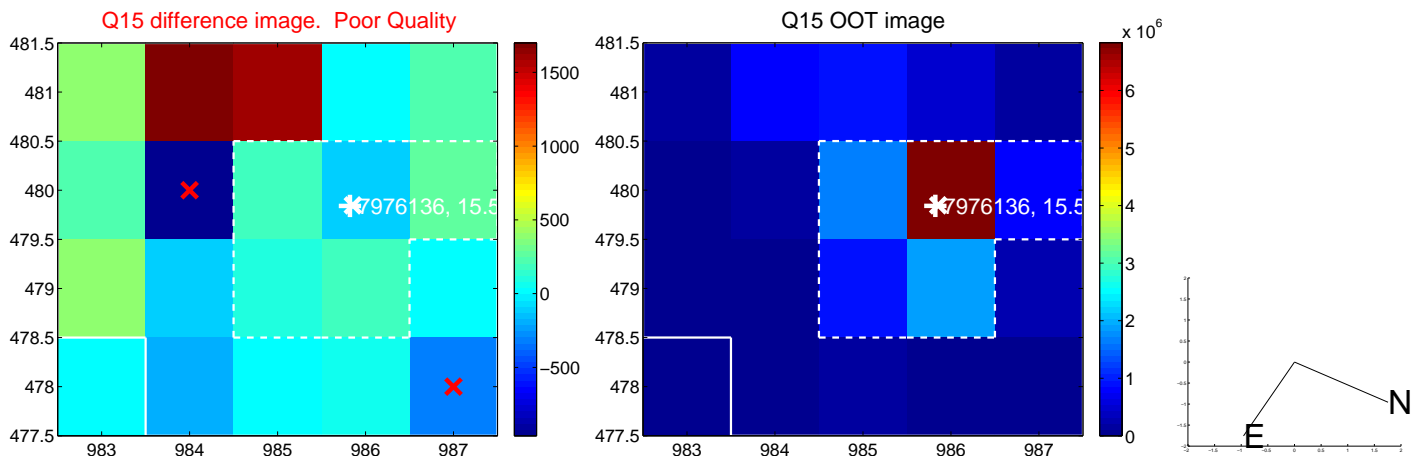
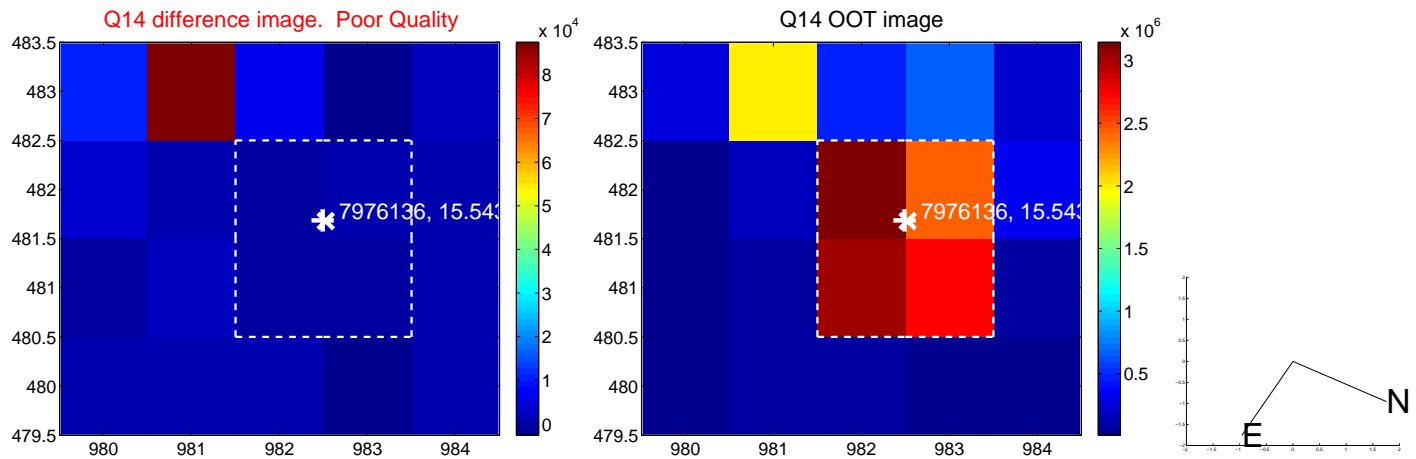
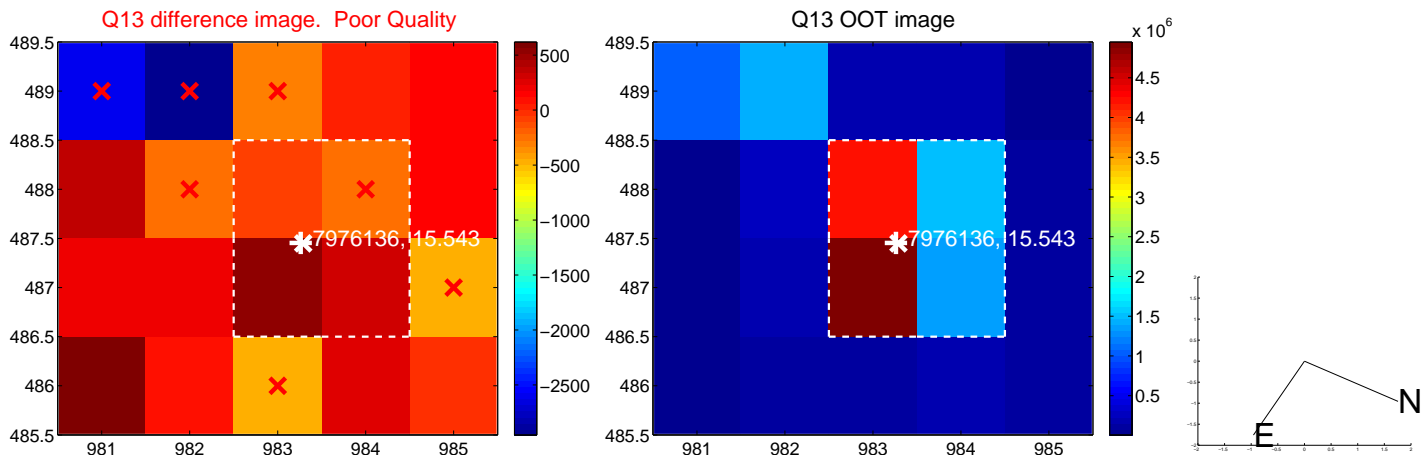
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



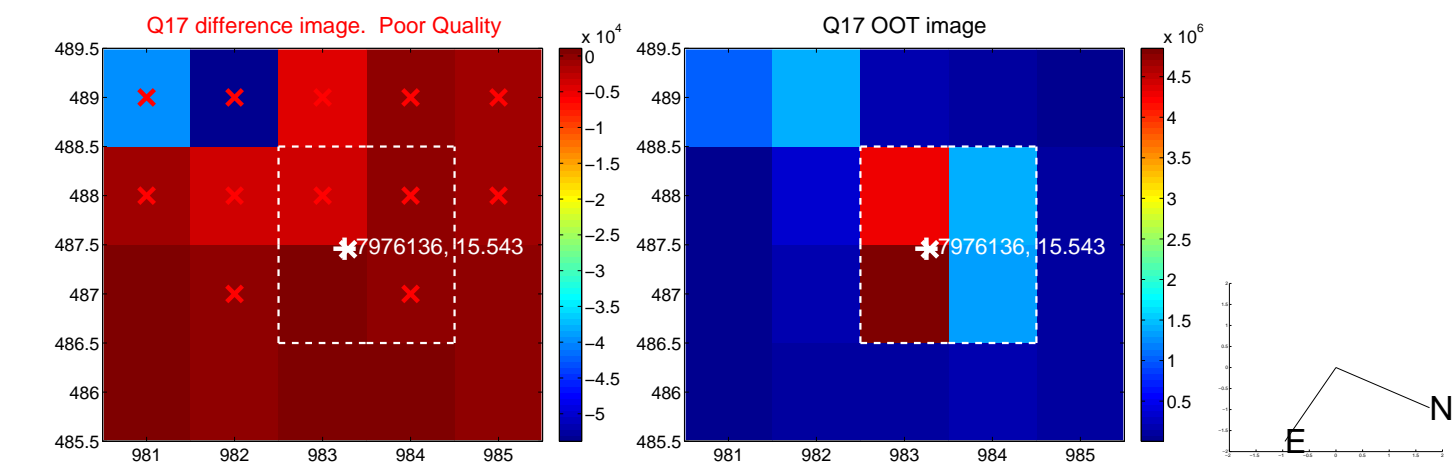
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



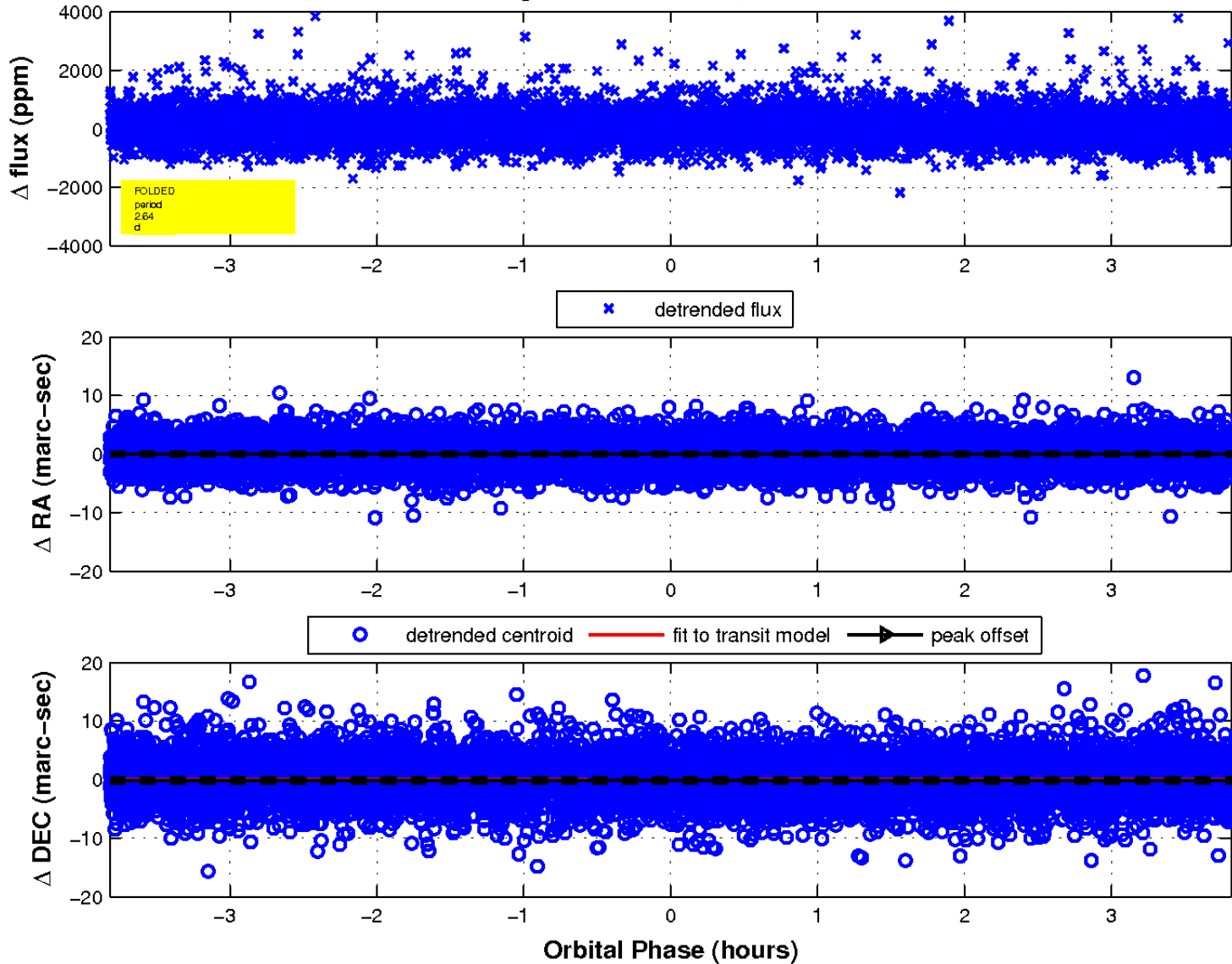
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

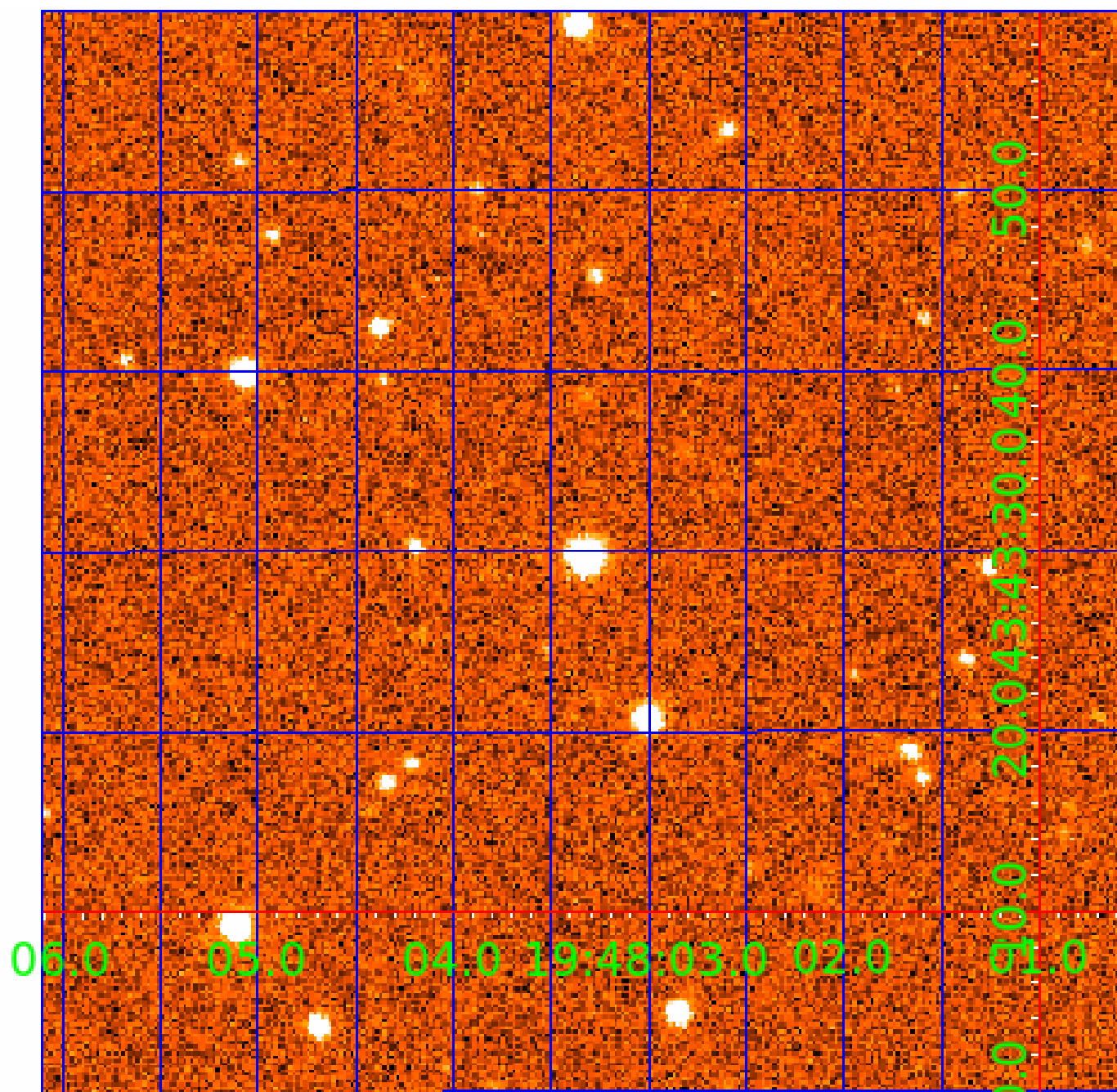


fluxWeightedCentroids, Planet 3 of 7



UKIRT Image

Declination



KIC 007976136

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
007976136-01	OBS	6945.01	0.655049	131.814383	59.3	4.828	11.4	11.4	1.01	6063	0.85	5281.21
007976136-02	OBS	No	8.523290	139.211373	2333.8	2.215	14.4	12.7	1.01	6063	8.64	172.57
007976136-03	OBS	No	2.638898	131.941117	357.0	1.273	13.5	4.4	1.01	6063	2.09	823.89
007976136-04	OBS	No	8.524035	139.705953	552.2	1.544	11.8	3.3	1.01	6063	2.62	172.55
007976136-05	OBS	No	8.516783	139.984758	1079.9	1.725	11.5	9.4	1.01	6063	3.61	172.74
007976136-06	OBS	No	18.860961	136.995460	2903.2	1.578	11.8	12.0	1.01	6063	8.65	59.84
007976136-07	OBS	No	6.310436	134.964120	1042.8	2.500	8.2	-1.0	1.01	6063	3.26	257.64

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007976136-01	OBS	FP	0.00	0	1	1	0	MOD_SEC_ALT—CENT_RESOLVED_OFFSET
007976136-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_RESOLVED_OFFSET
007976136-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—CENT_RESOLVED_OFFSET
007976136-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_RESOLVED_OFFSET
007976136-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_TER_ALT—MOD_POS_ALT—CENT_RESOLVED_OFFSET
007976136-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—CENT_RESOLVED_OFFSET
007976136-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

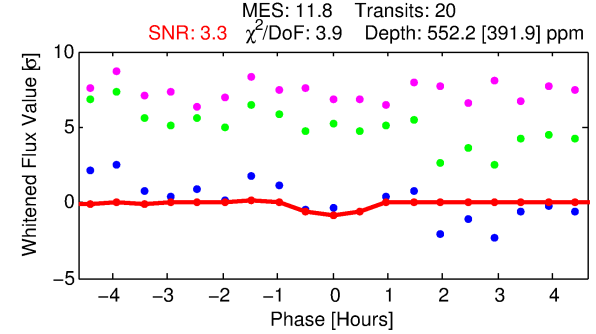
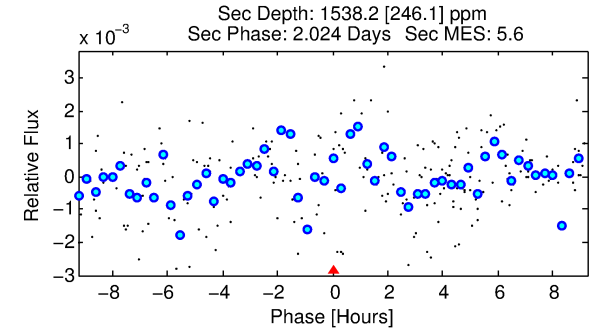
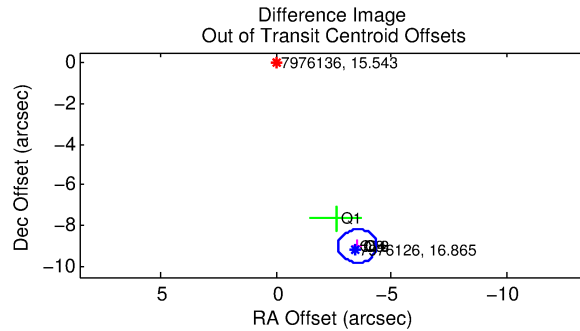
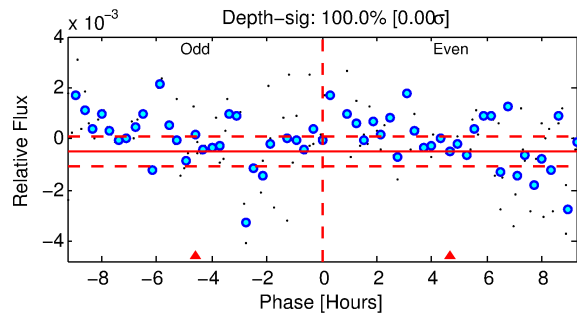
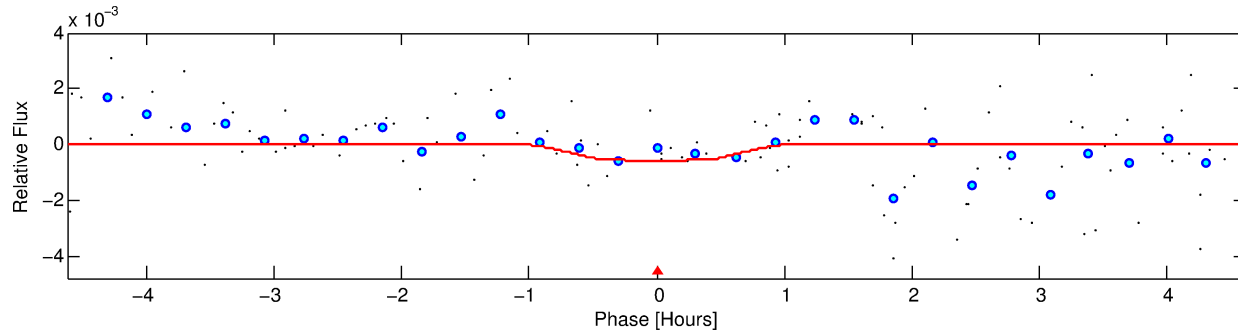
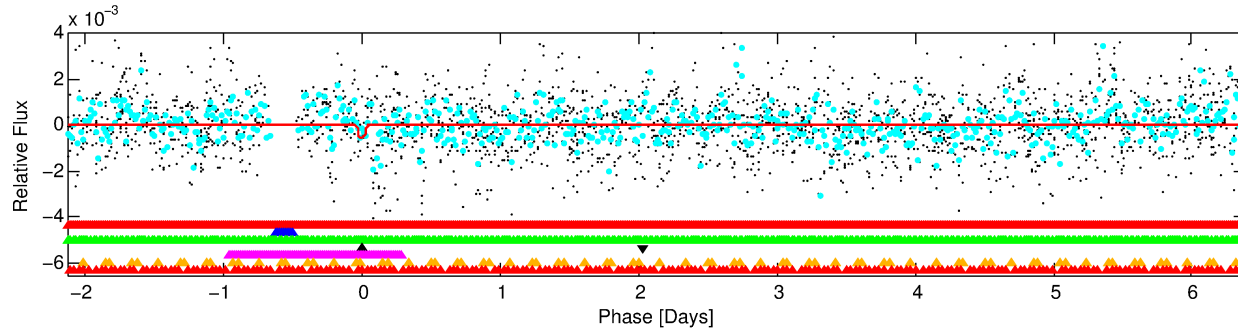
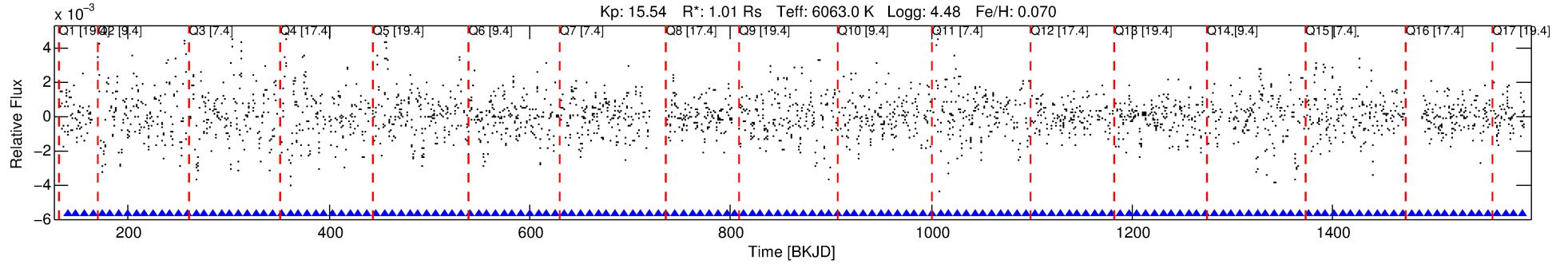
Ephemeris Match Information For 007976136-04

No Significant Match Found

DV One-Page Summary

KIC: 7976136 Candidate: 4 of 7 Period: 8.524 d
KOI: K06945 Corr: No Ephemeris Match

Kp: 15.54 R*: 1.01 Rs Teff: 6063.0 K Logg: 4.48 Fe/H: 0.070



DV Fit Results:

Period = 8.52403 [0.00043] d
Epoch = 139.7060 [0.0329] BKJD
Rp/R* = 0.0237 [0.1722]
a/R* = 28.09 [969.64]
b = 0.78 [17.82]
Seff = 172.55 [64.96]
Teq = 924 [87] K
Rp = 2.62 [19.03] Re
a = 0.0848 [0.0203] AU
Ag = 886.41 [12876.02] [0.07σ]
Teff = 7797 [28306] K [0.24σ]

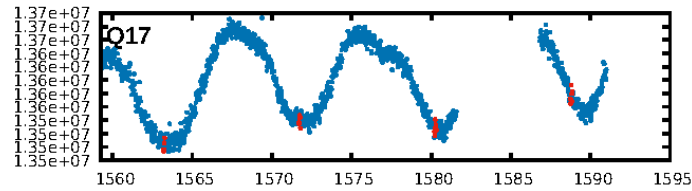
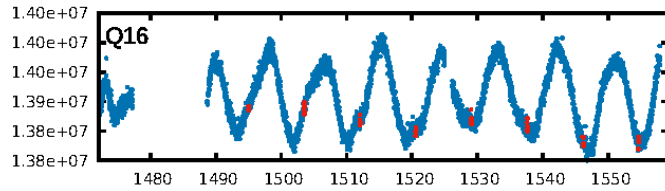
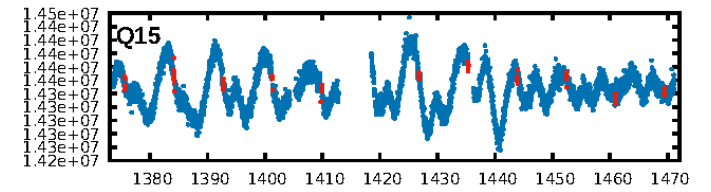
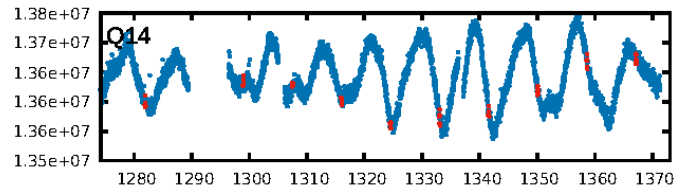
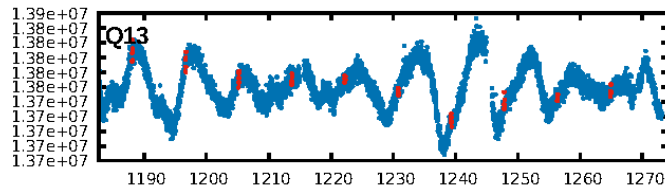
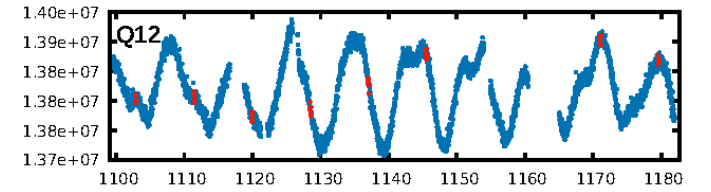
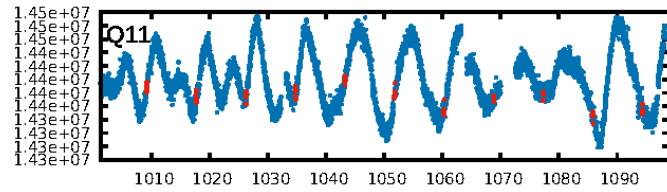
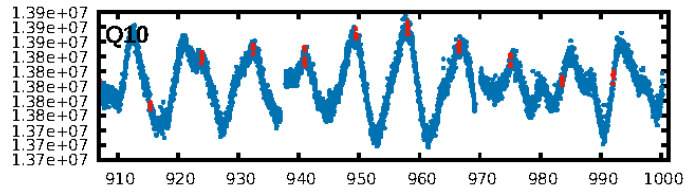
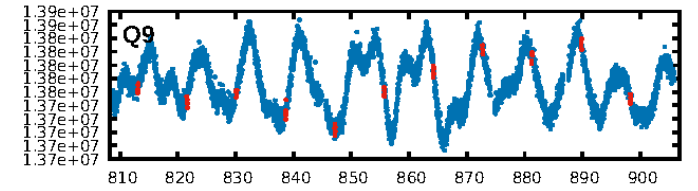
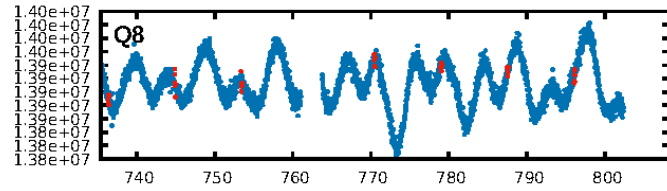
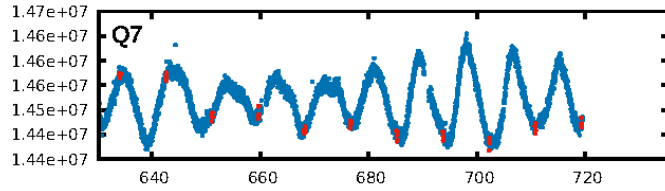
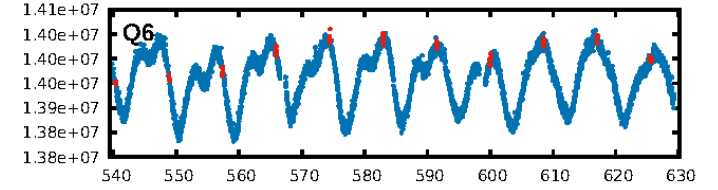
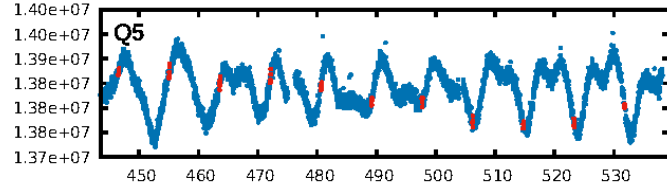
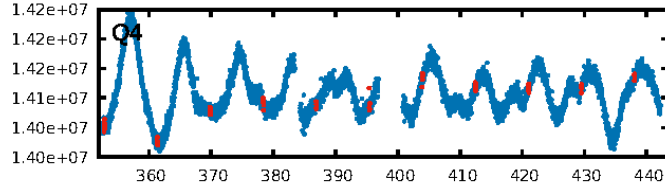
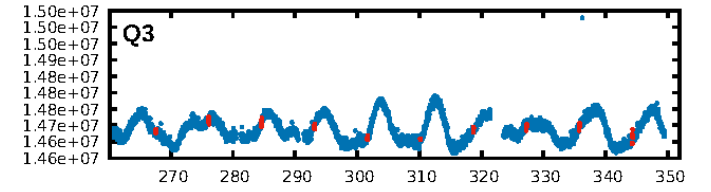
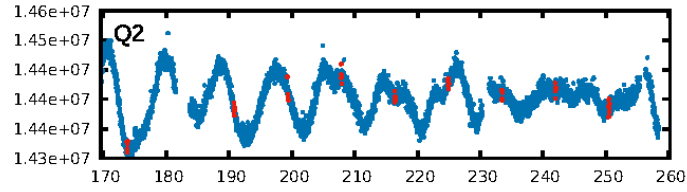
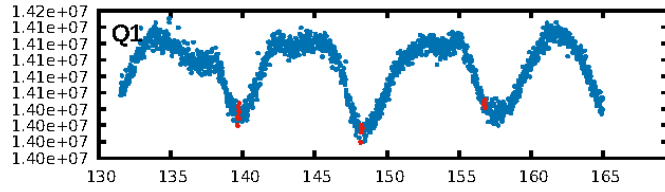
DV Diagnostic Results:

ShortPeriod-sig: 0.5% [0.01σ]
LongPeriod-sig: 100.0% [112.39σ]
ModelChiSquare2-sig: 4.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [20/20]
GhostDiagnostic-chr: -0.4726
Centroid-sig: 8.5%
Centroid-so: 0.767 arcsec [1.12σ]
OotOffset-rm: 9.652 arcsec [35.33σ]
KicOffset-rm: 9.726 arcsec [30.43σ]
OotOffset-st: 0/0/4/1 [5]
KicOffset-st: 0/0/4/1 [5]
DiffImageQuality-fgm: 1.00 [5/5]
DiffImageOverlap-fno: 0.00 [0/17]

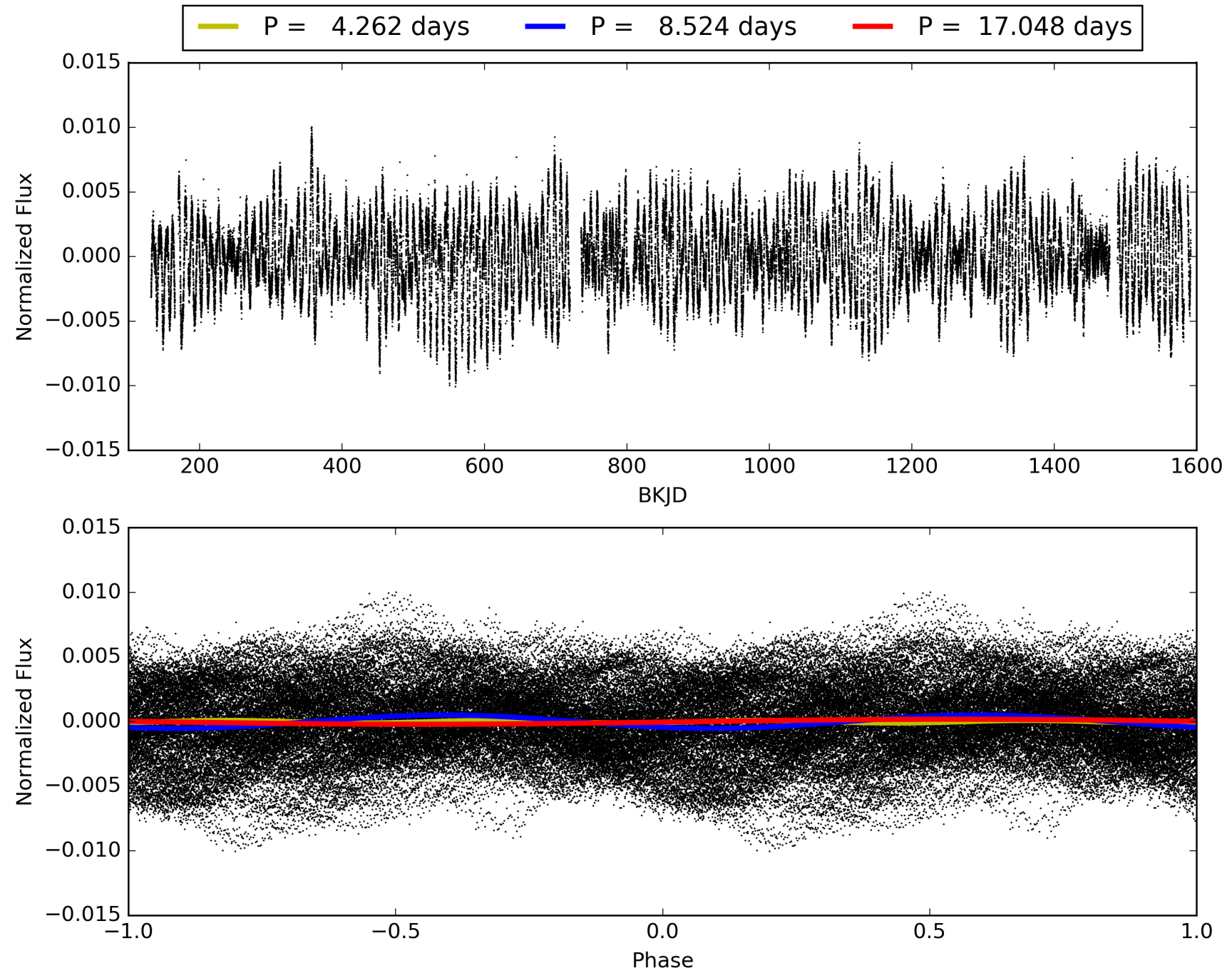
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 06:03:21 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 007976136-04, PDC Light Curves

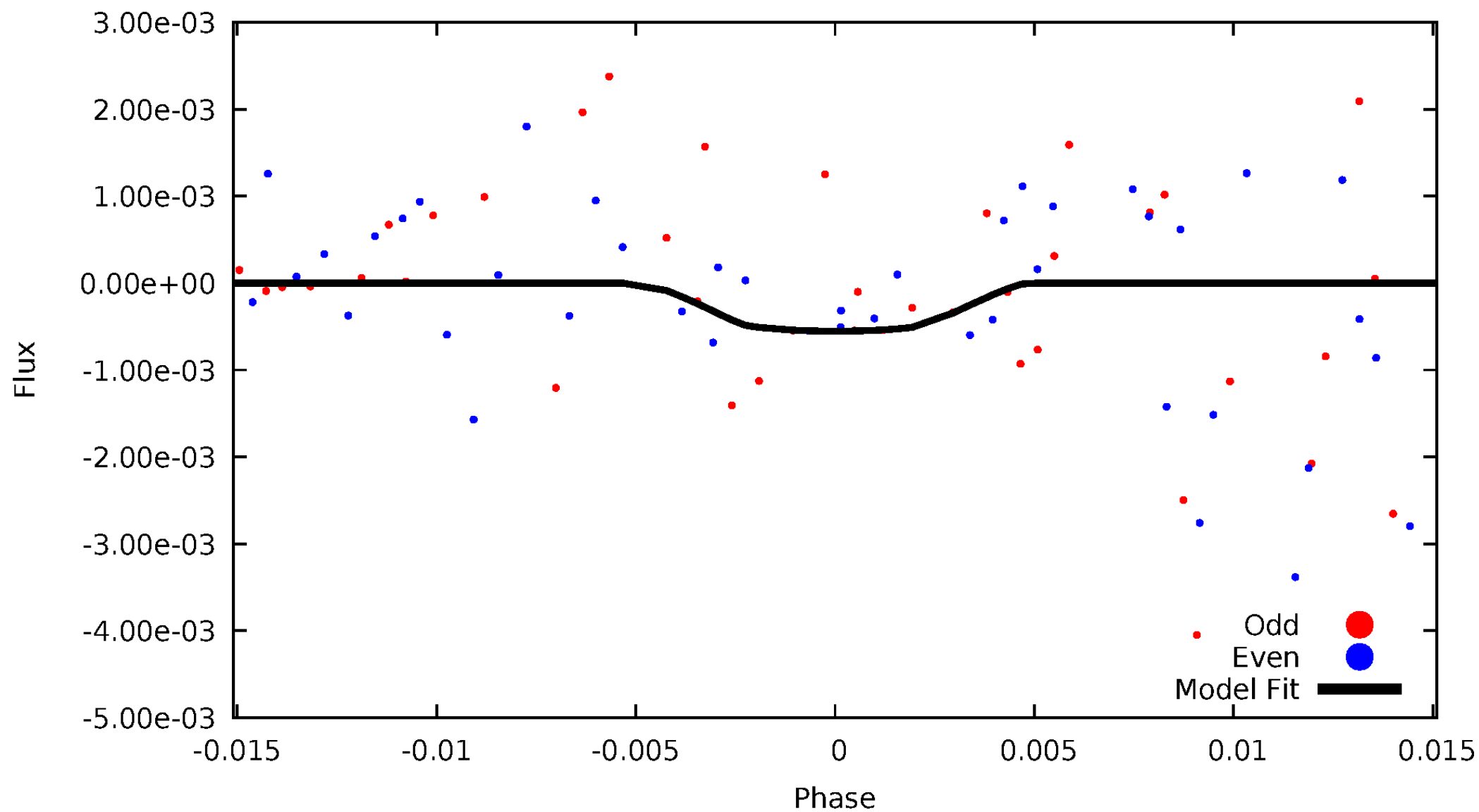


TCE 007976136-04



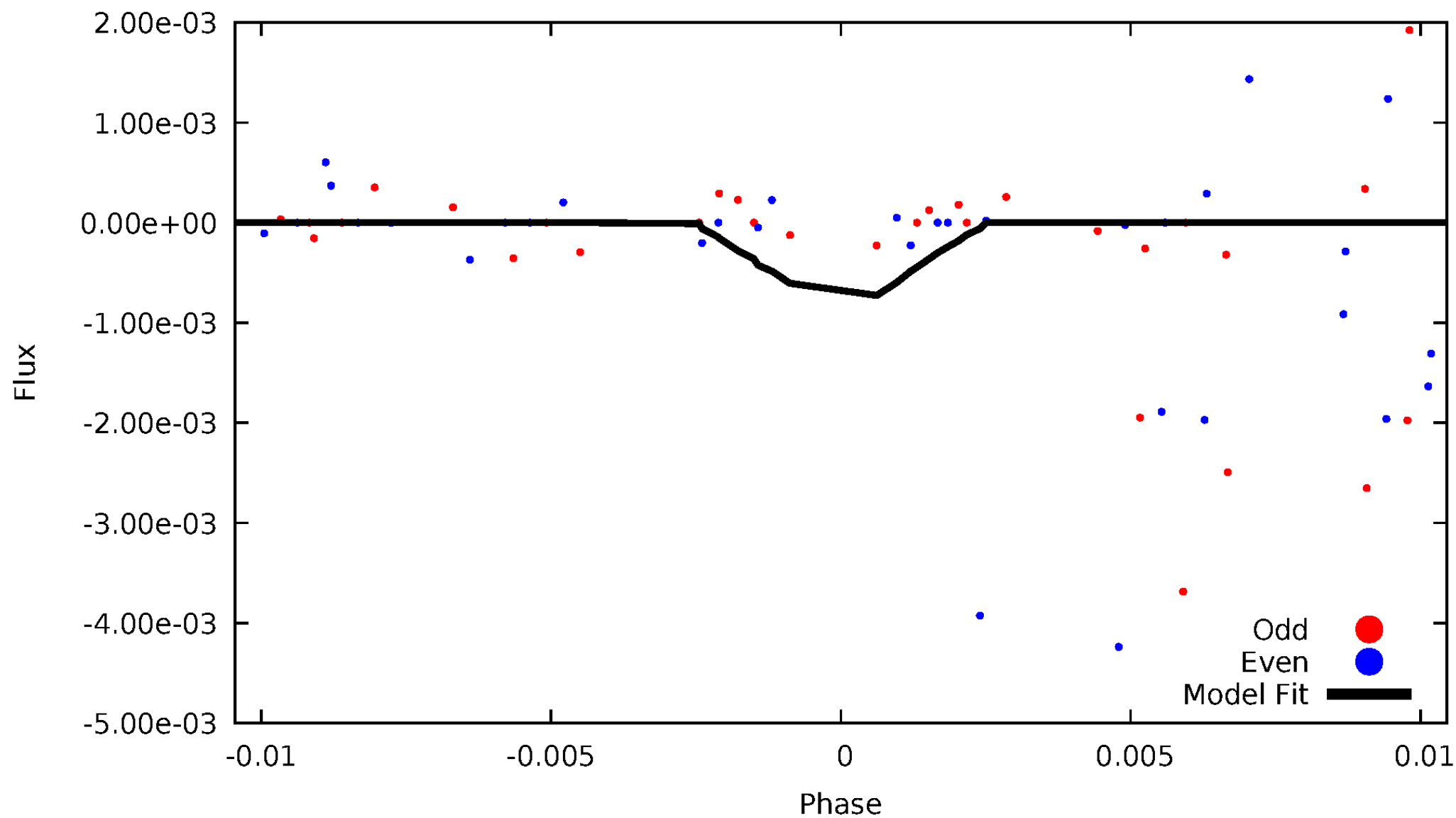
DV Odd/Even

TCE 007976136-04



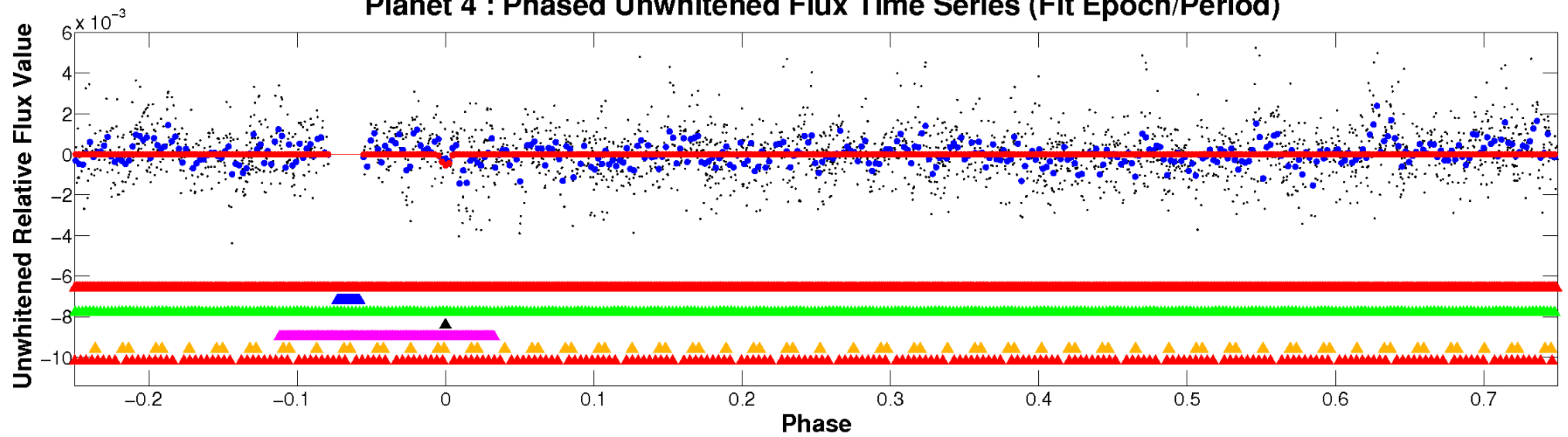
ALT Odd/Even

TCE 007976136-04

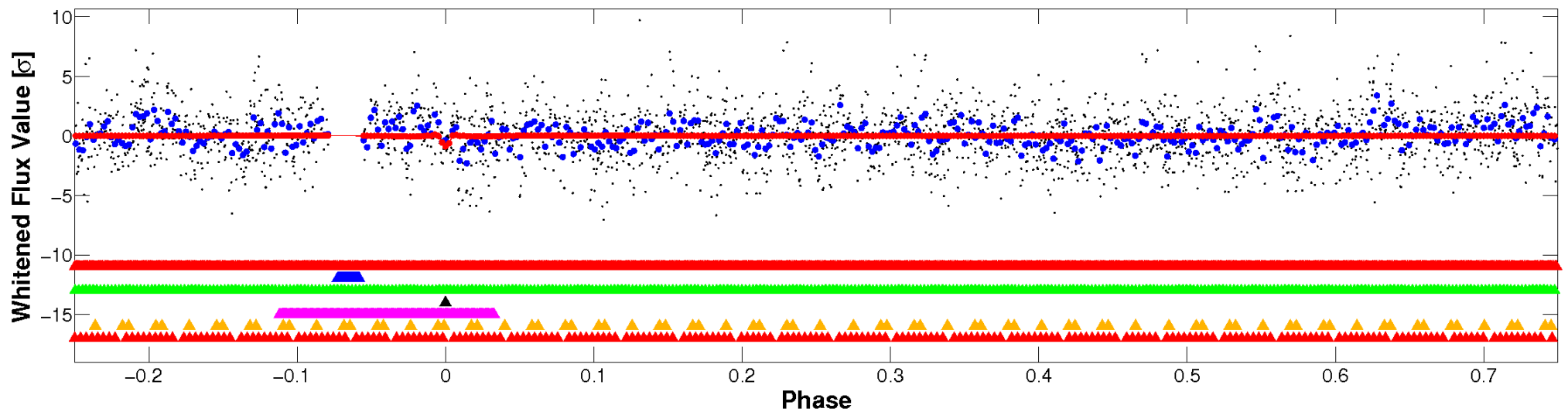


Non-Whitened Vs. Whitened Light Curve

Planet 4 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

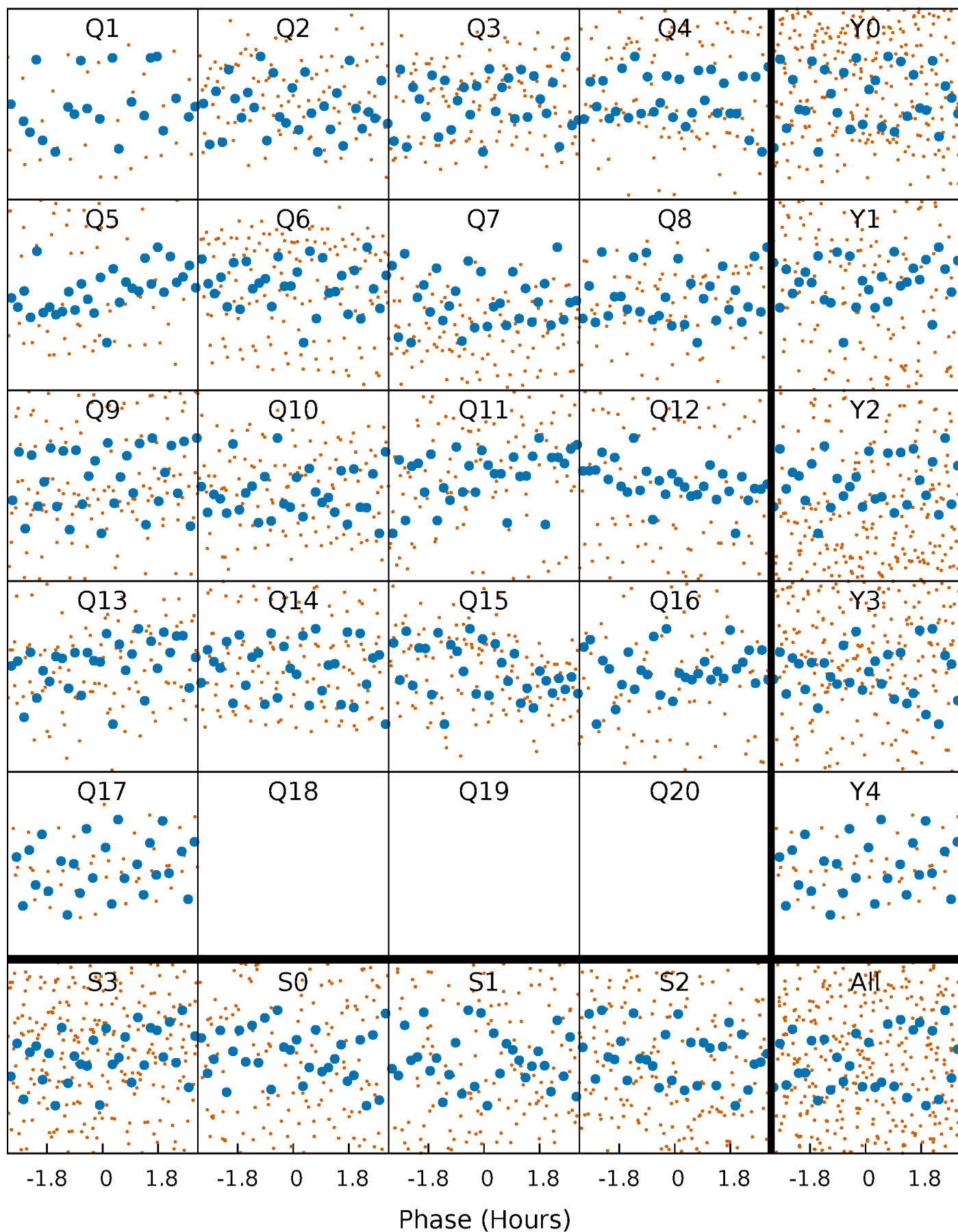


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



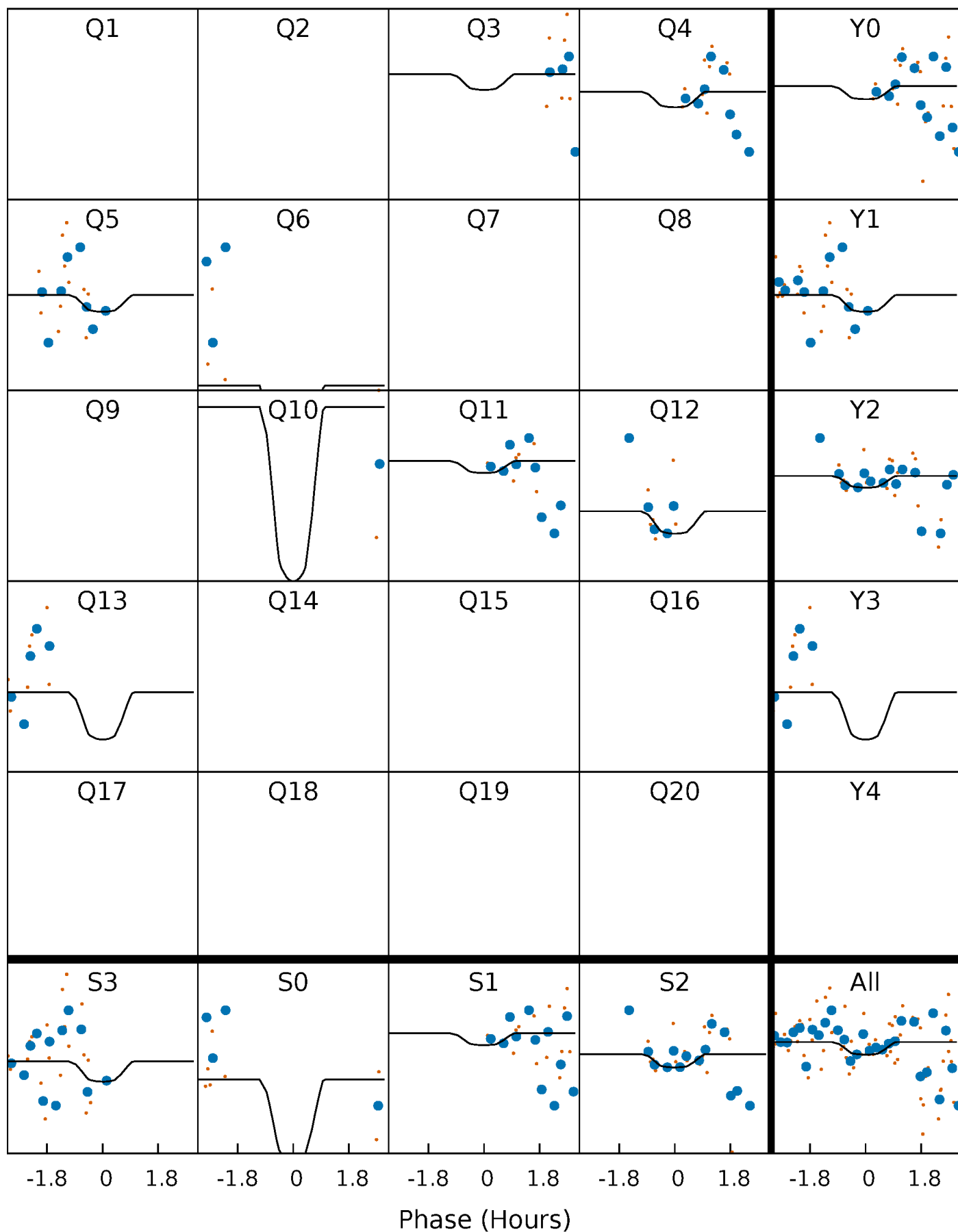
PDC Quarter-Phased Transit Curves

TCE 007976136-04 P= 8.524035 Days $T_0=139.705953$ (BKJD)



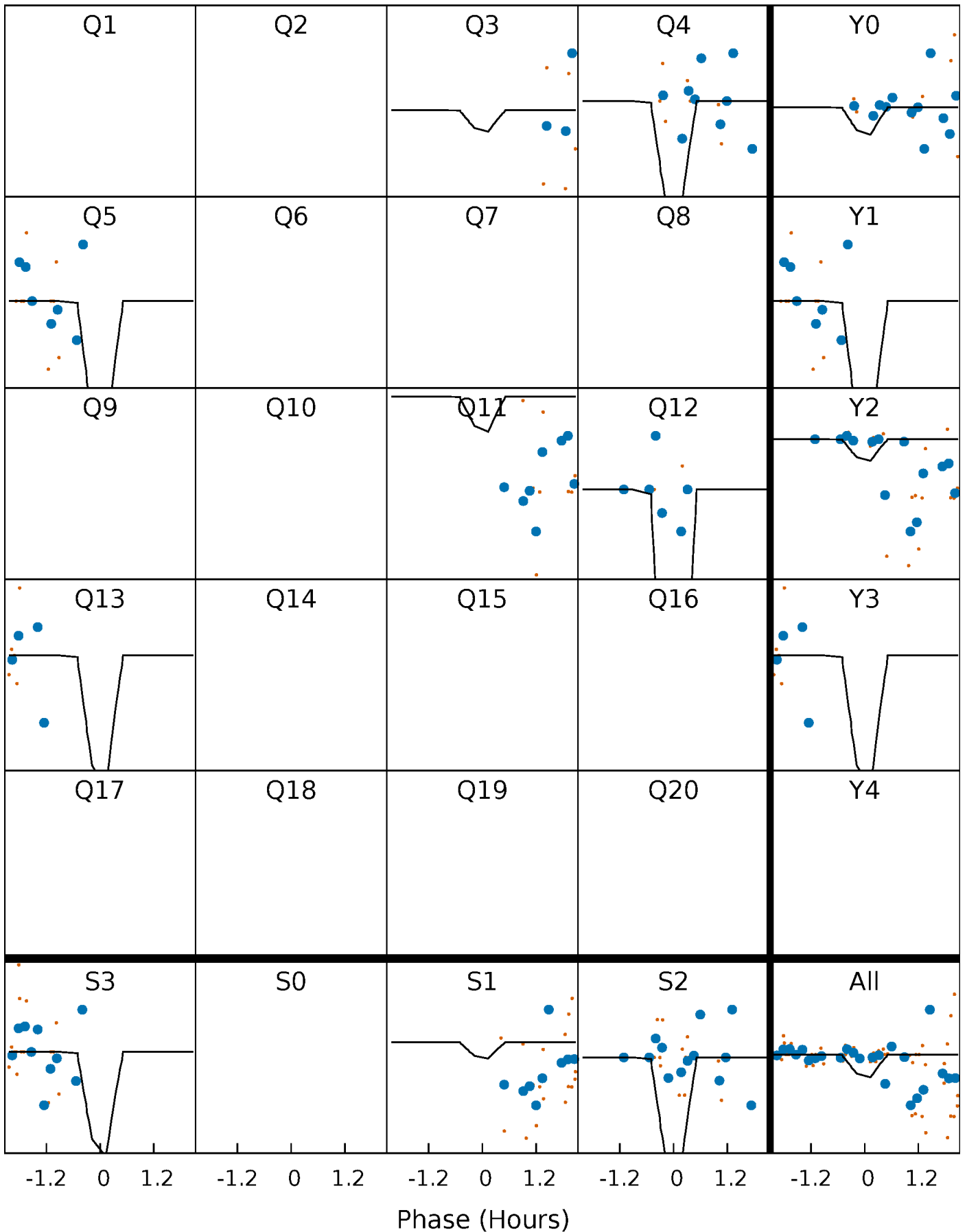
DV Quarter-Phased Transit Curves

TCE 007976136-04 P= 8.524035 Days $T_0=139.705953$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

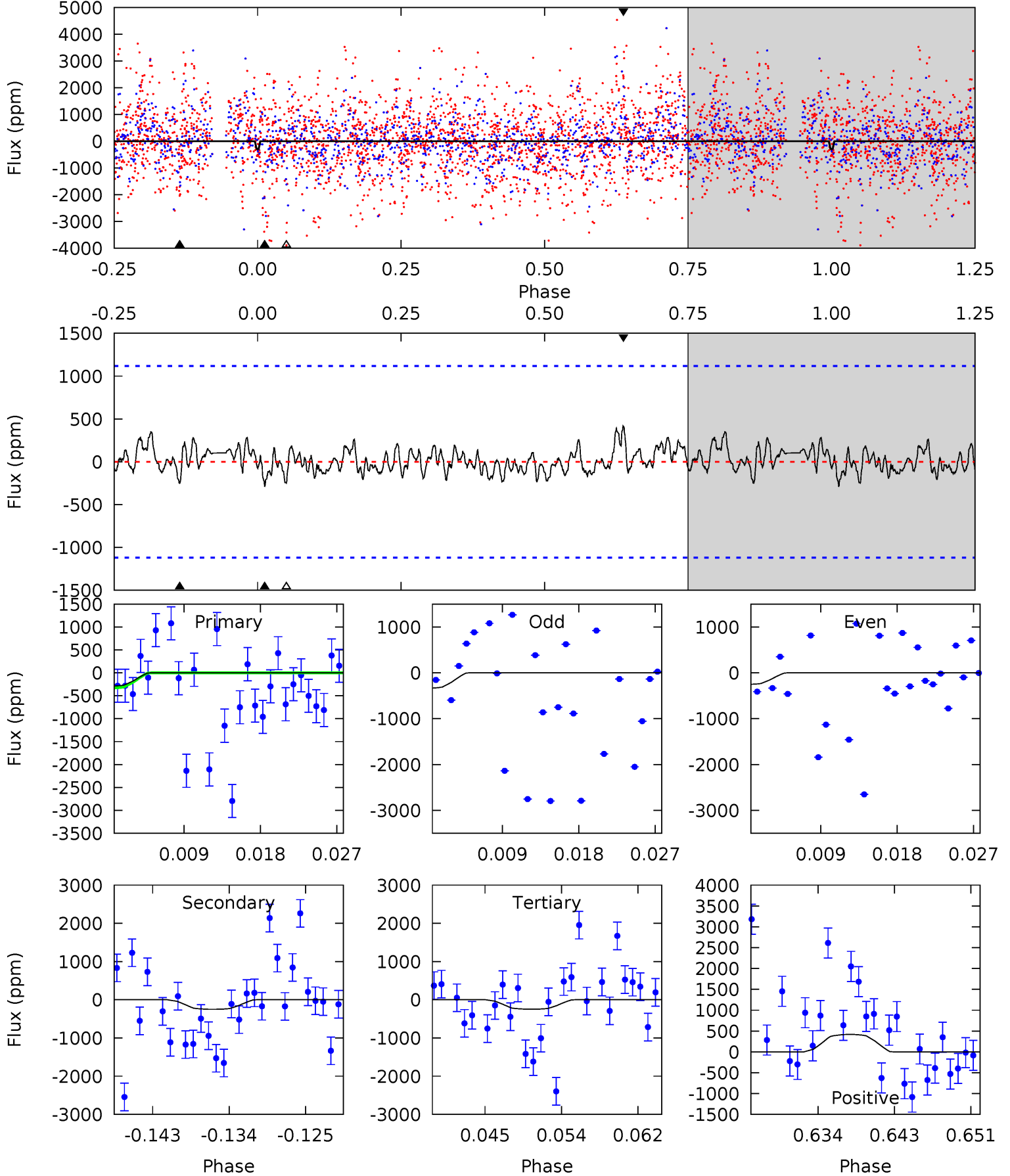
TCE 007976136-04 P= 8.523580 Days $T_0=139.744451$ (BKJD)



DV Model-Shift Uniqueness Test

007976136-04, P = 8.524035 Days, E = 131.181918 Days

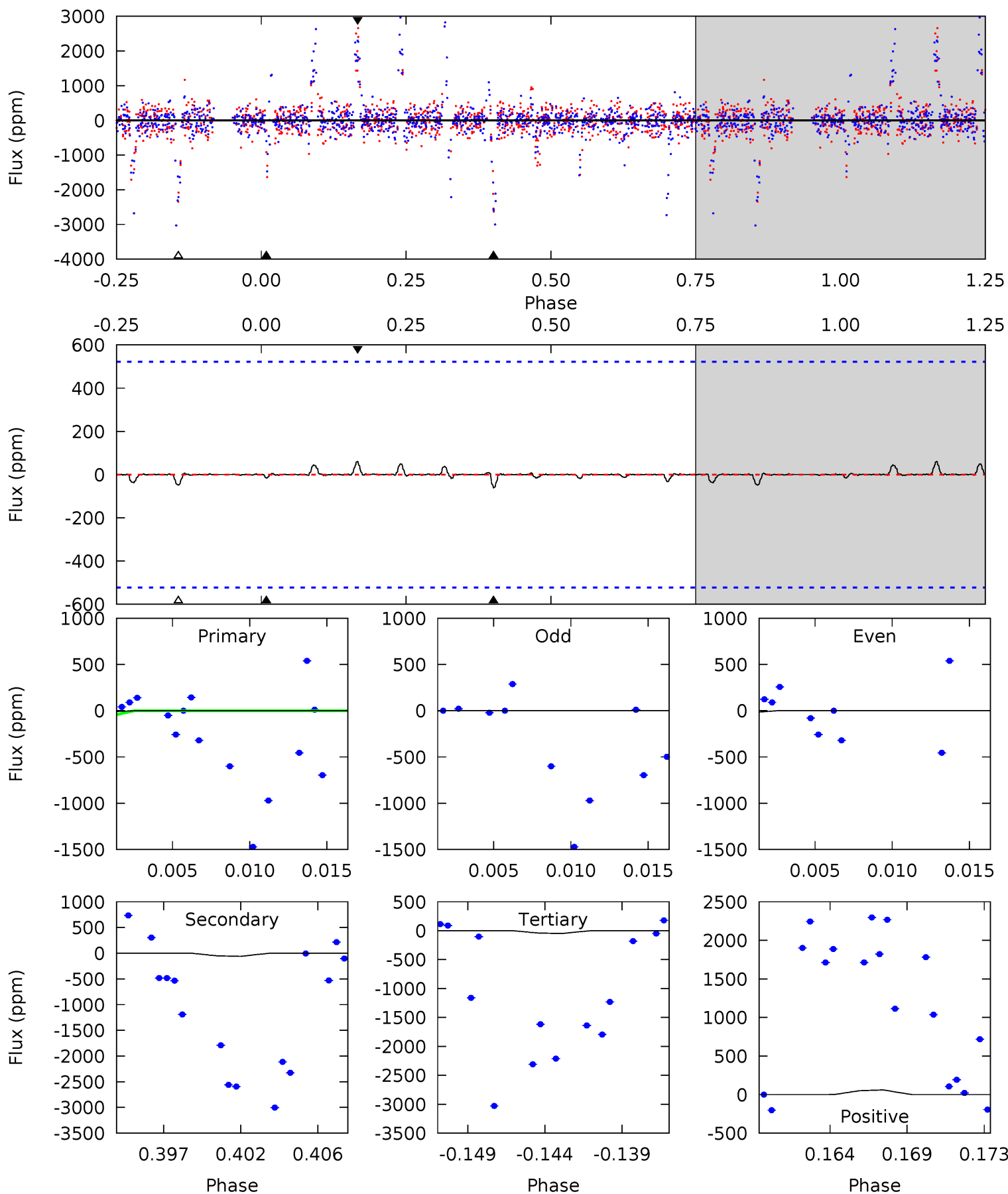
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.31	1.13	1.12	1.89	5.05	2.61	0.55	0.20	-0.57	0.01	-0.76	0.19	1.02	0.59	0.21



Alt Model-Shift Uniqueness Test

007976136-04, P = 8.523580 Days, E = 131.220871 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.15	0.61	0.48	0.60	5.16	2.81	0.08	-0.33	-0.45	0.13	0.01	0.11	1.75	0.50	0.04



Stellar Parameters For KIC 007976136

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6063^{+169}_{-211}	$4.476^{+0.048}_{-0.192}$	$0.070^{+0.200}_{-0.350}$	$1.012^{+0.286}_{-0.114}$	$1.117^{+0.120}_{-0.174}$	$1.519^{+0.379}_{-0.737}$
	+3%/-3%	+1%/-4%	+286%/-500%	+28%/-11%	+11%/-16%	+25%/-49%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 007976136-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-250±222	$14.02^{+16.16}_{-10.16}$	1315^{+92}_{-65}	2697^{+1463}_{-4553}	$3.444^{+45.034}_{-3.245}$
Alt.	-62±101	$14.65^{+15.39}_{-10.30}$	1316^{+87}_{-62}	2134^{+999}_{-4419}	$0.715^{+8.320}_{-1.117}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming A=0.3)

A_{obs} = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

DV Centroid Data

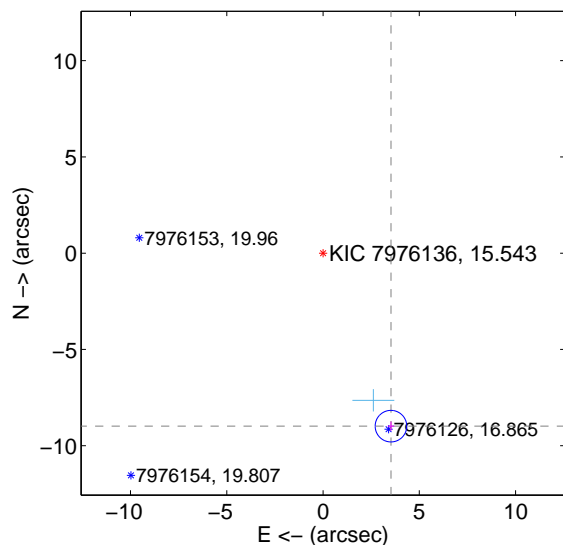
Supplemental centroid analysis for 007976136-04. Kepler magnitude: 15.54. Transit SNR 3.26

There are 5 quarters with good PRF difference image offsets

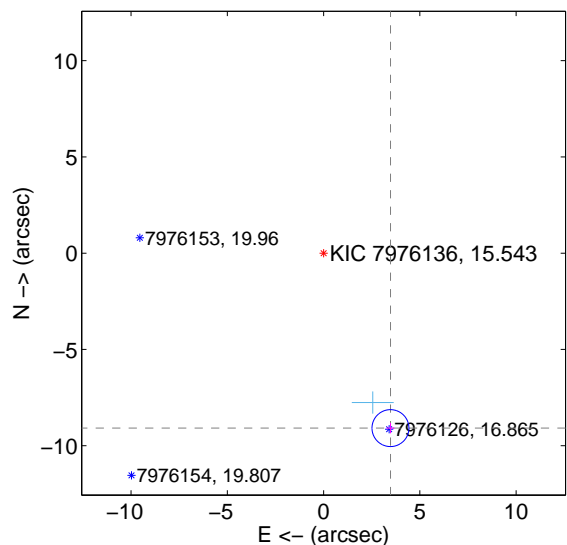
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	9.652 \pm 0.273	35.33	-3.527 \pm 0.163	-8.984 \pm 0.237
PRF-fit source offset from KIC position	9.726 \pm 0.320	30.43	-3.473 \pm 0.204	-9.085 \pm 0.270
photometric centroid source offset	0.77 \pm 0.68	1.12	0.77 \pm 0.68	0.03 \pm 0.98

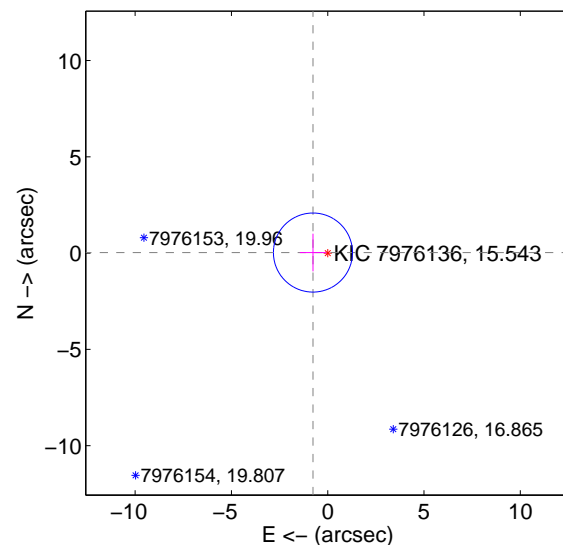
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

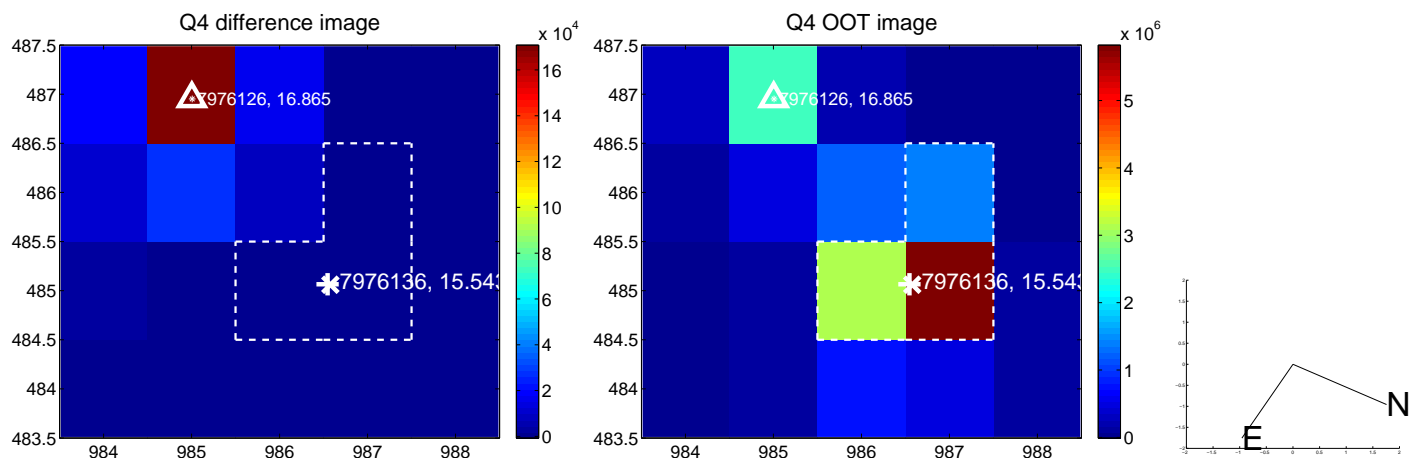
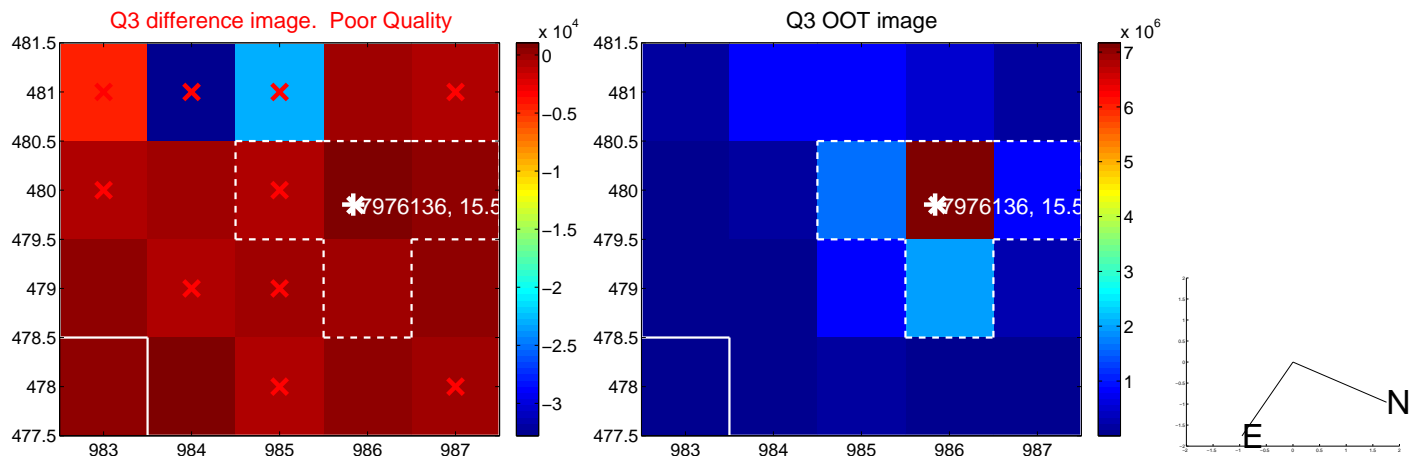
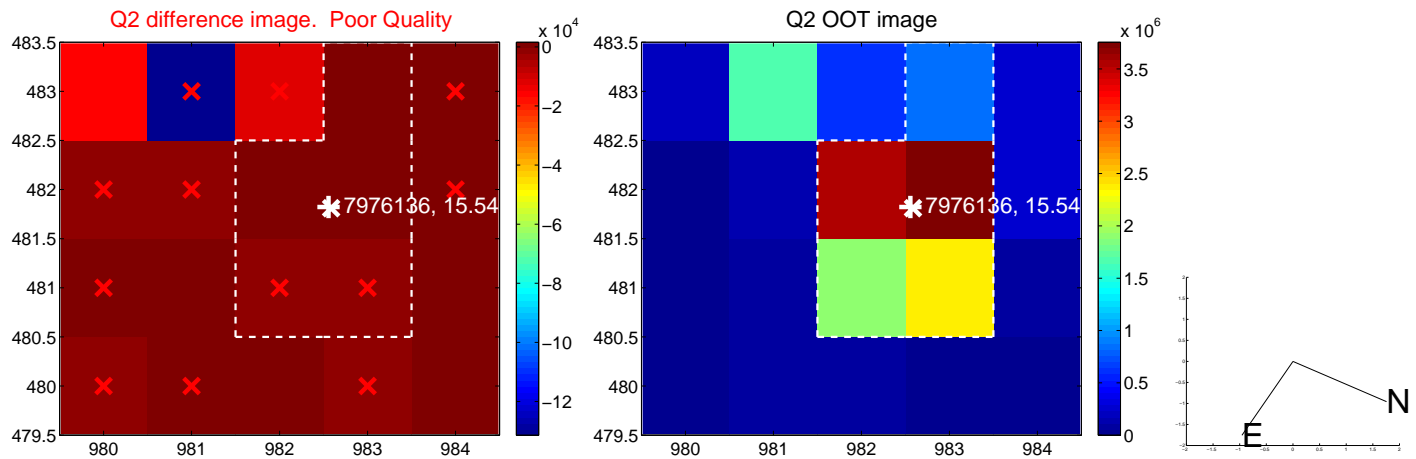
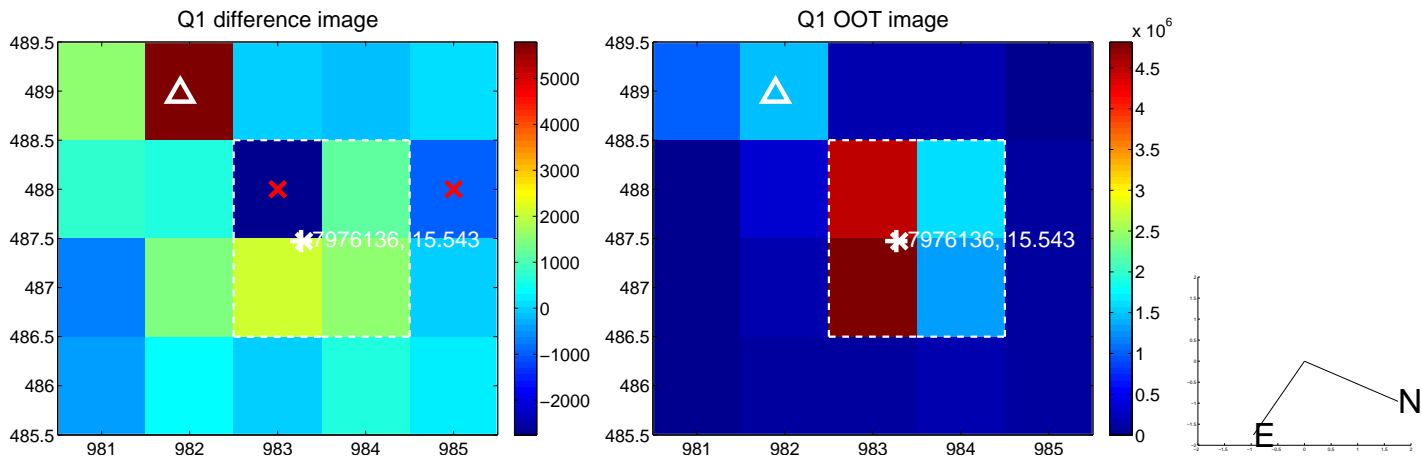


offset from photometric centroids

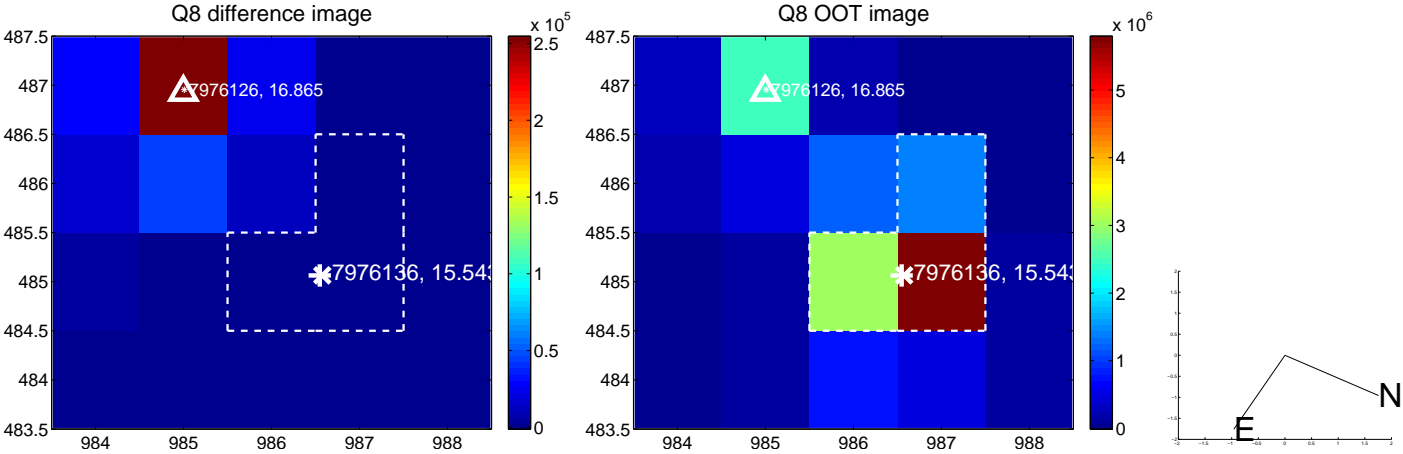
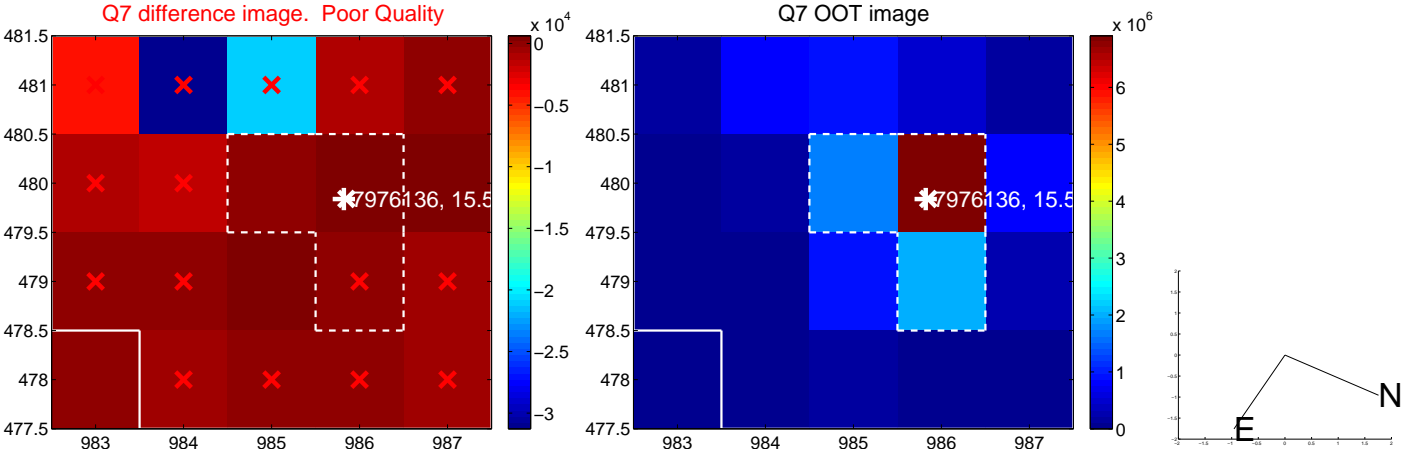
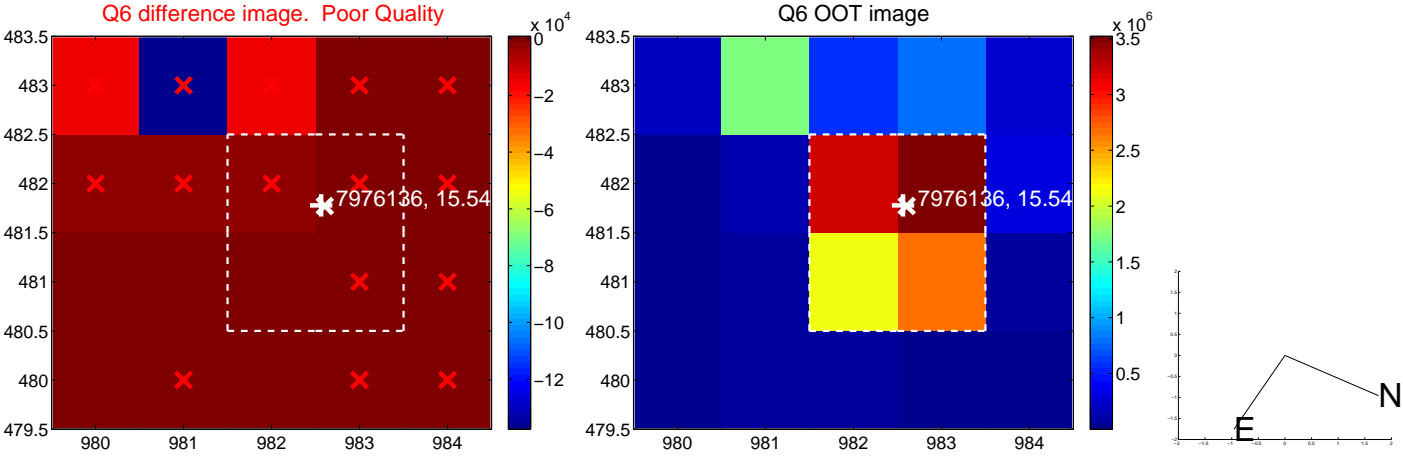
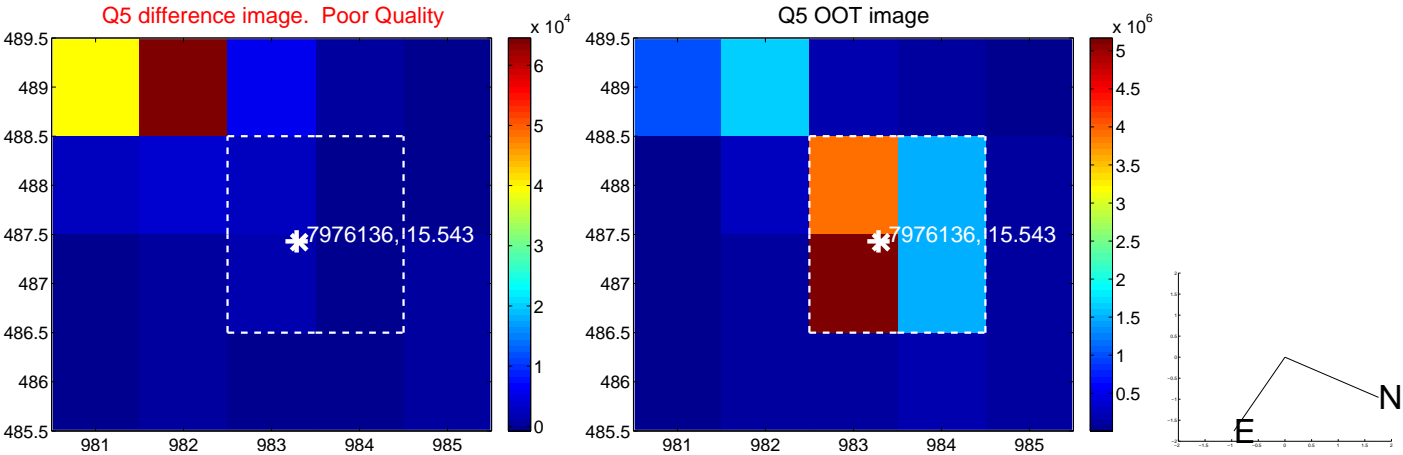


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

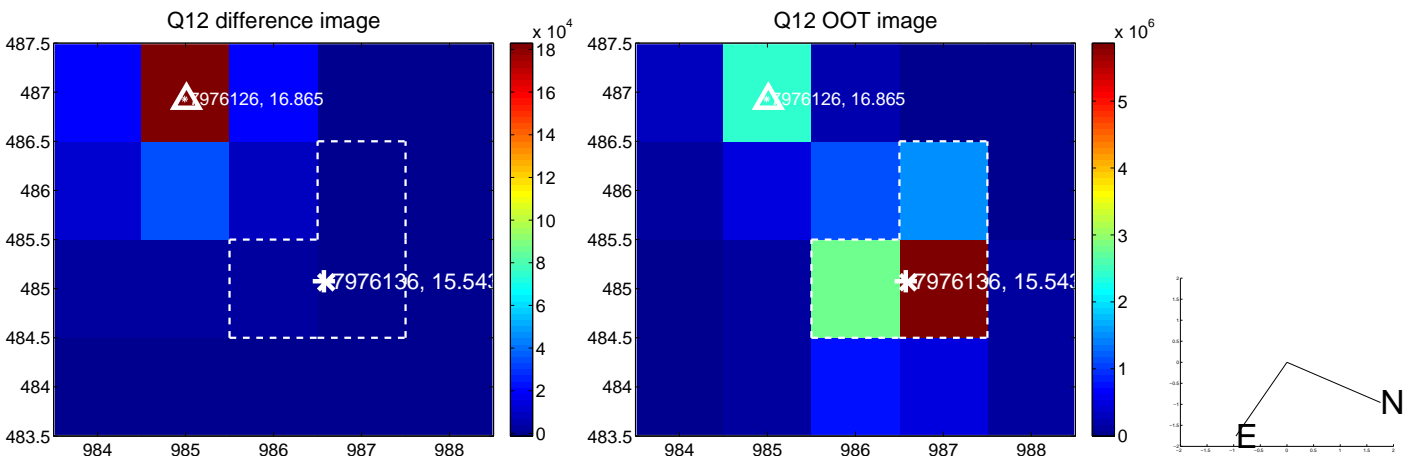
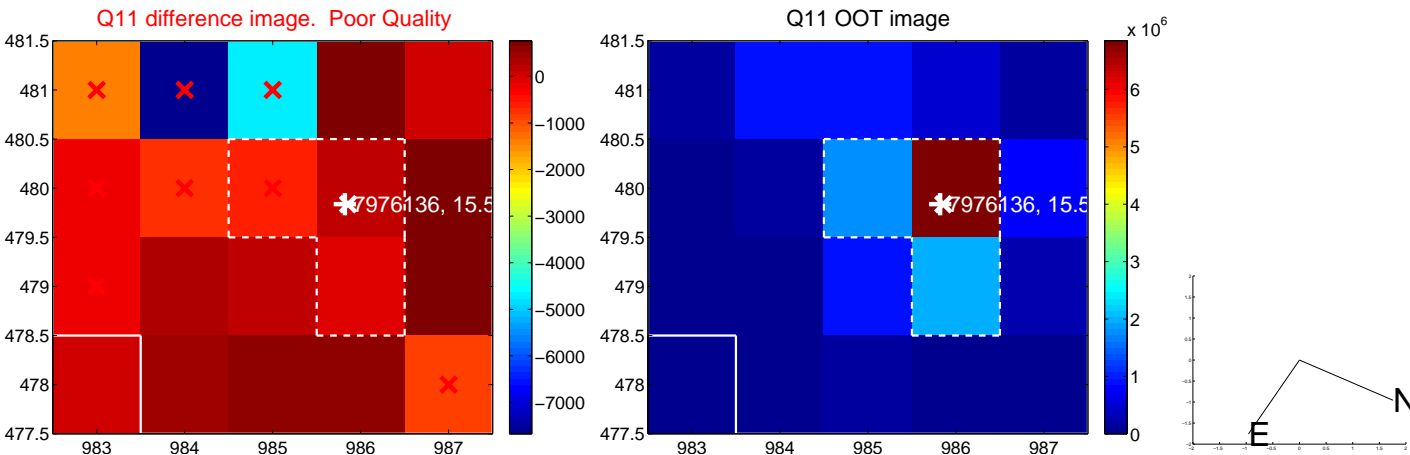
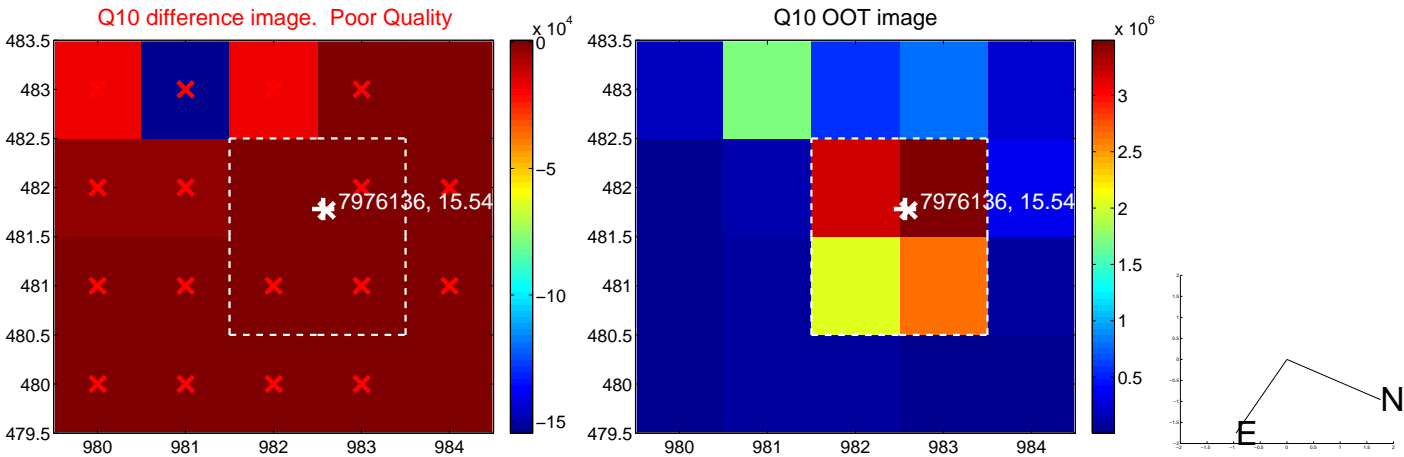
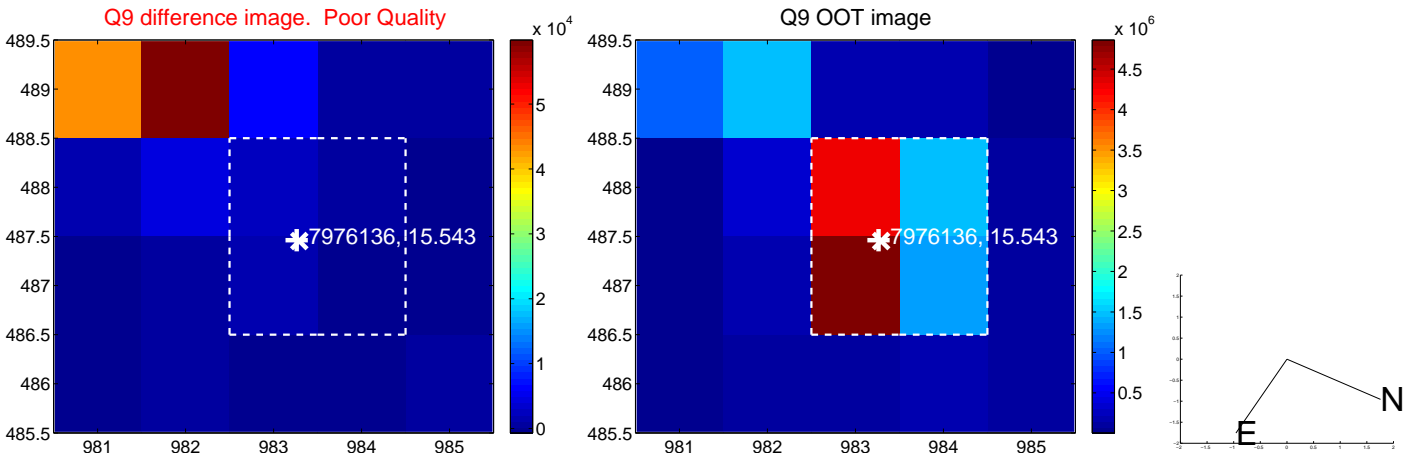
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



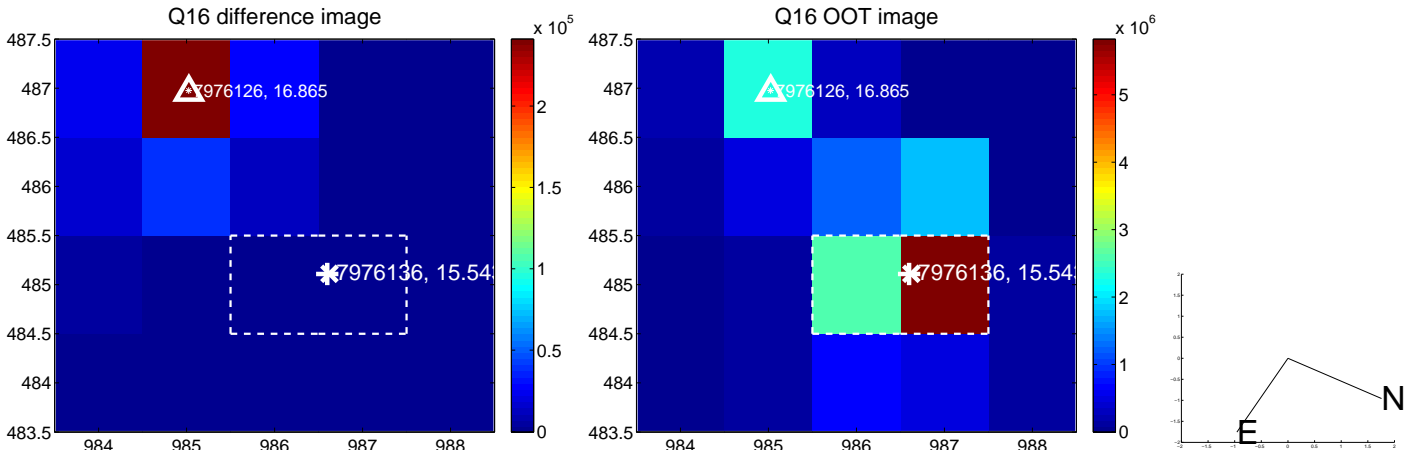
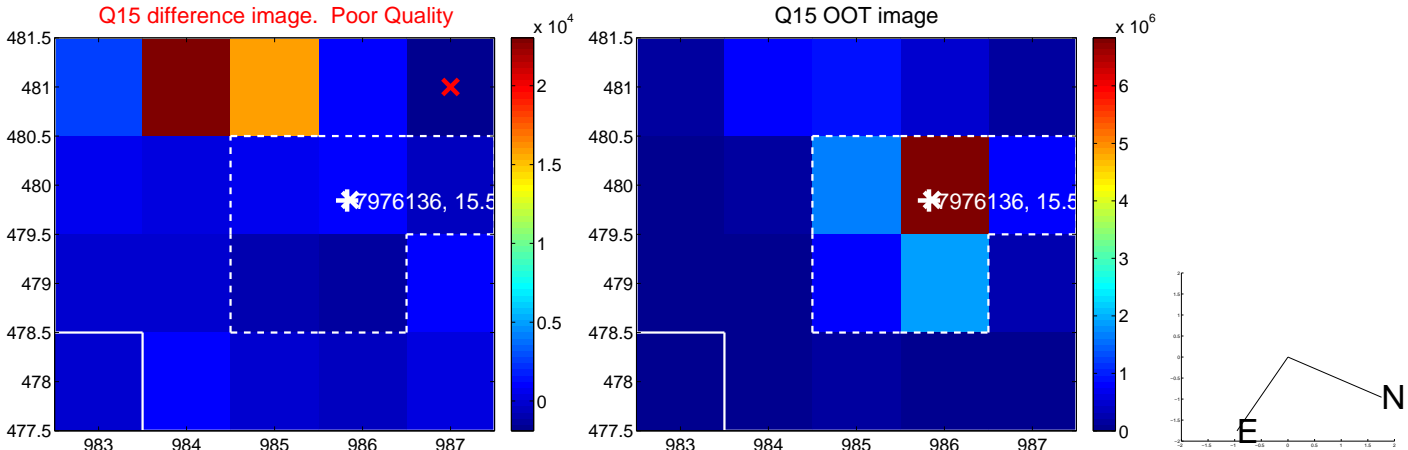
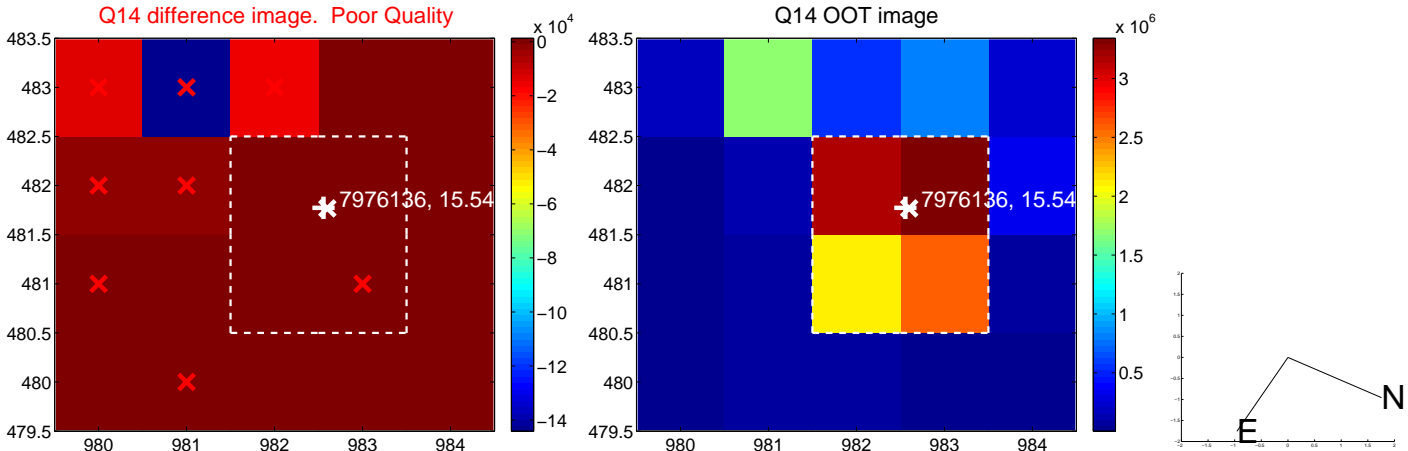
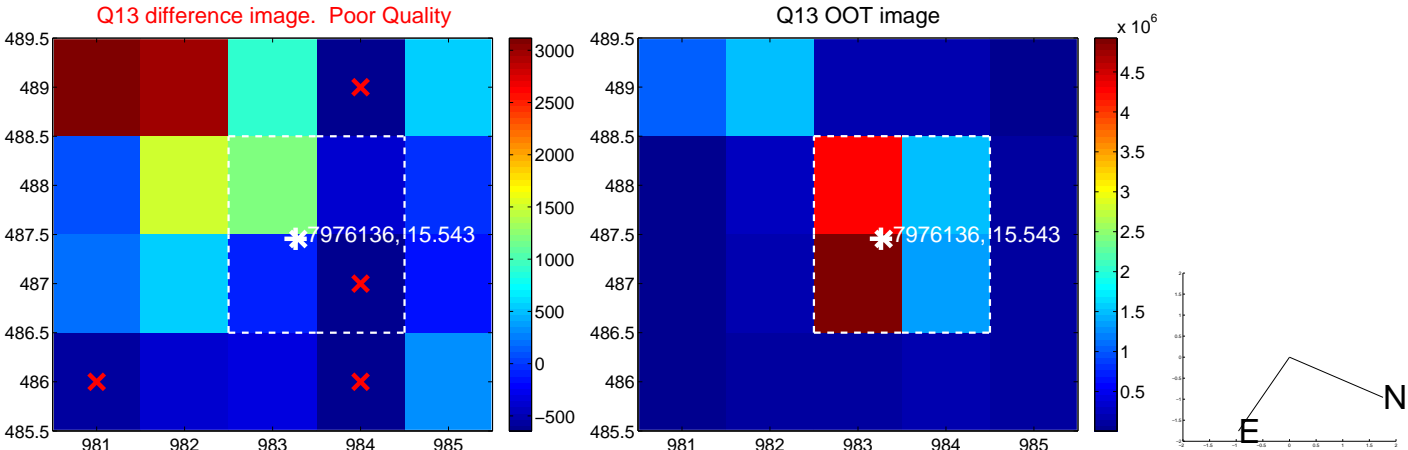
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



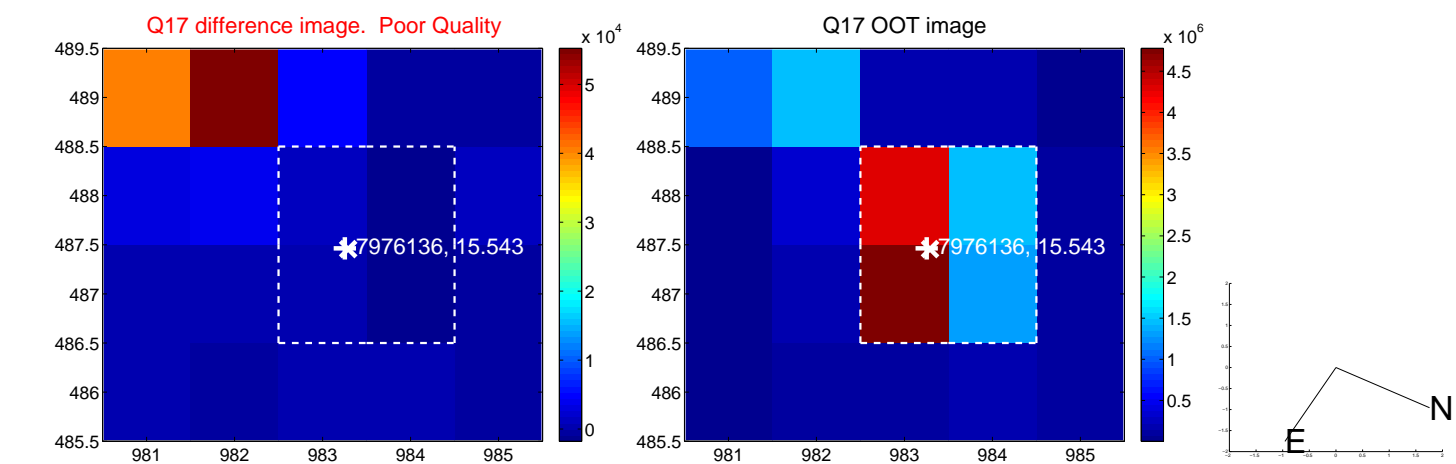
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



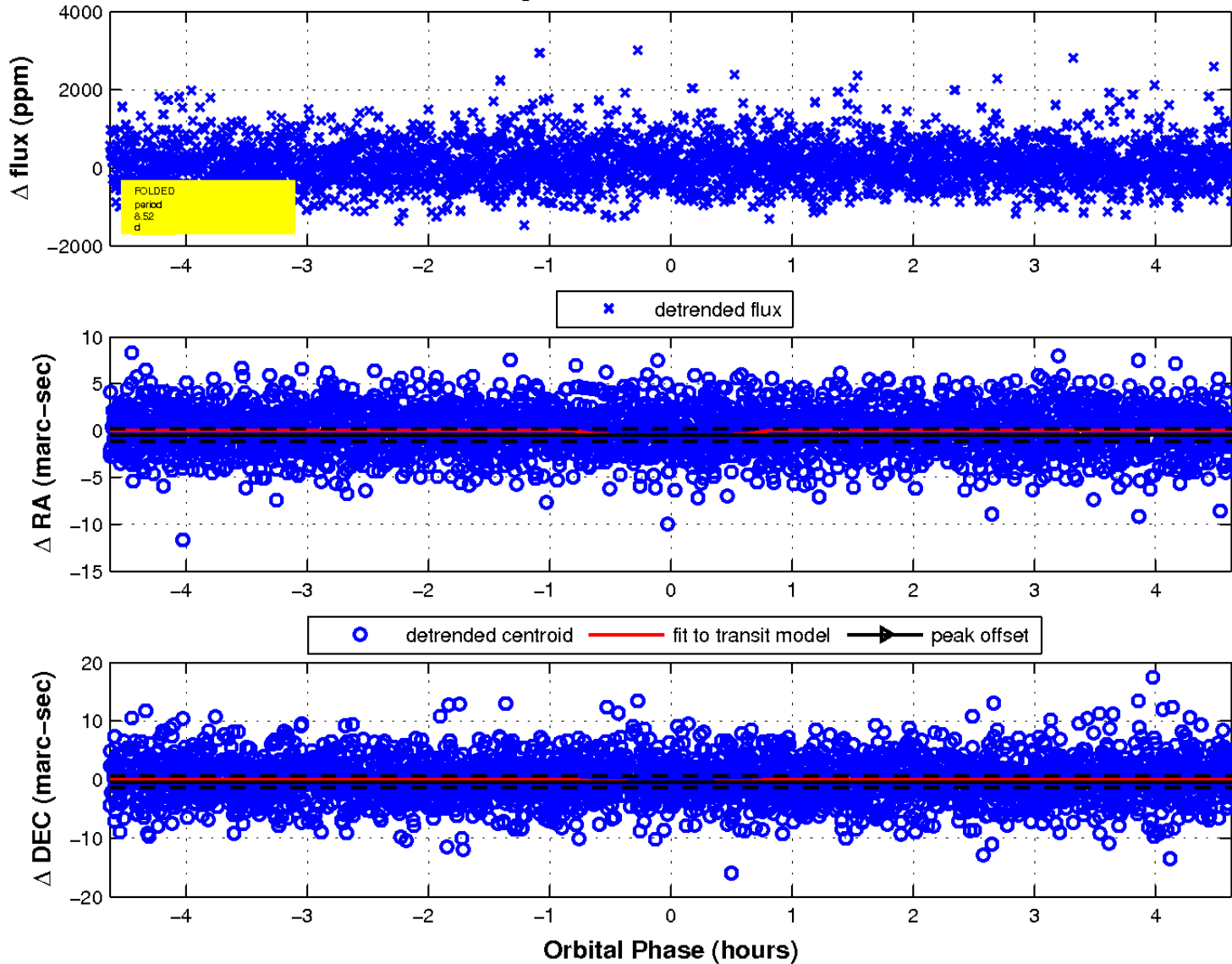
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

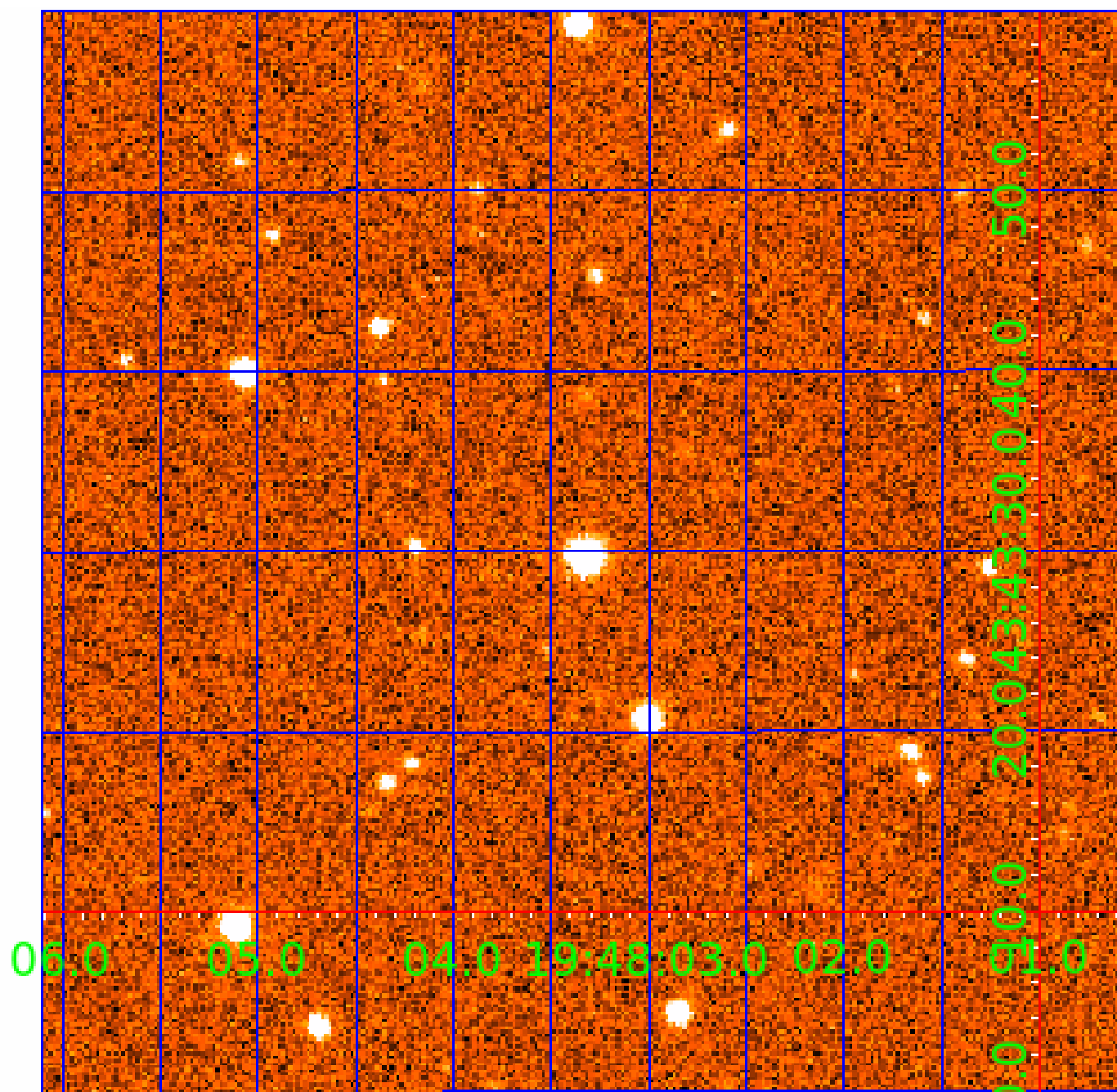


fluxWeightedCentroids, Planet 4 of 7



UKIRT Image

Declination



KIC 007976136

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
007976136-01	OBS	6945.01	0.655049	131.814383	59.3	4.828	11.4	11.4	1.01	6063	0.85	5281.21
007976136-02	OBS	No	8.523290	139.211373	2333.8	2.215	14.4	12.7	1.01	6063	8.64	172.57
007976136-03	OBS	No	2.638898	131.941117	357.0	1.273	13.5	4.4	1.01	6063	2.09	823.89
007976136-04	OBS	No	8.524035	139.705953	552.2	1.544	11.8	3.3	1.01	6063	2.62	172.55
007976136-05	OBS	No	8.516783	139.984758	1079.9	1.725	11.5	9.4	1.01	6063	3.61	172.74
007976136-06	OBS	No	18.860961	136.995460	2903.2	1.578	11.8	12.0	1.01	6063	8.65	59.84
007976136-07	OBS	No	6.310436	134.964120	1042.8	2.500	8.2	-1.0	1.01	6063	3.26	257.64

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007976136-01	OBS	FP	0.00	0	1	1	0	MOD_SEC_ALT—CENT_RESOLVED_OFFSET
007976136-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_RESOLVED_OFFSET
007976136-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—CENT_RESOLVED_OFFSET
007976136-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_RESOLVED_OFFSET
007976136-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_TER_ALT—MOD_POS_ALT—CENT_RESOLVED_OFFSET
007976136-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—CENT_RESOLVED_OFFSET
007976136-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007976136-05

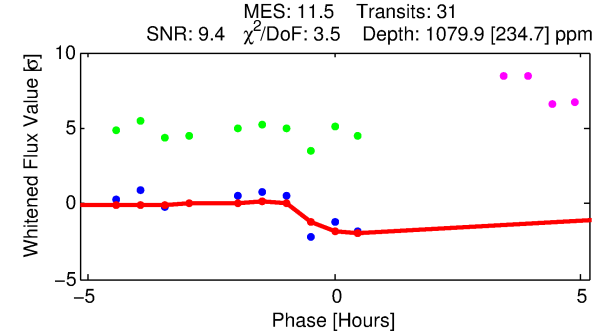
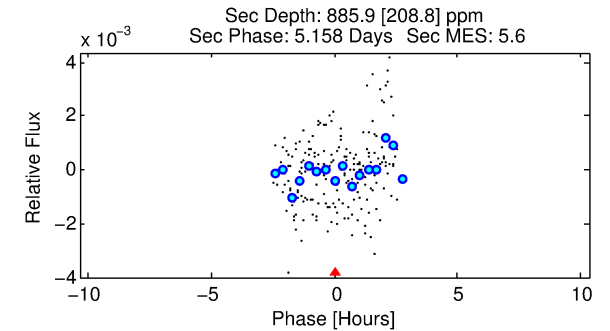
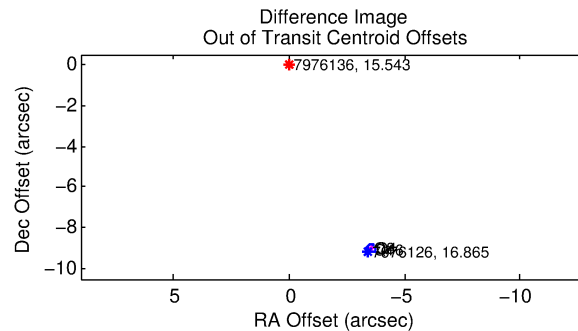
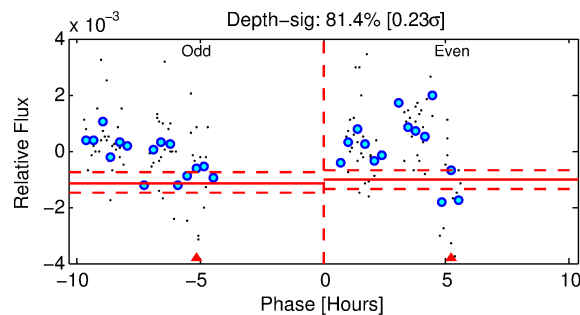
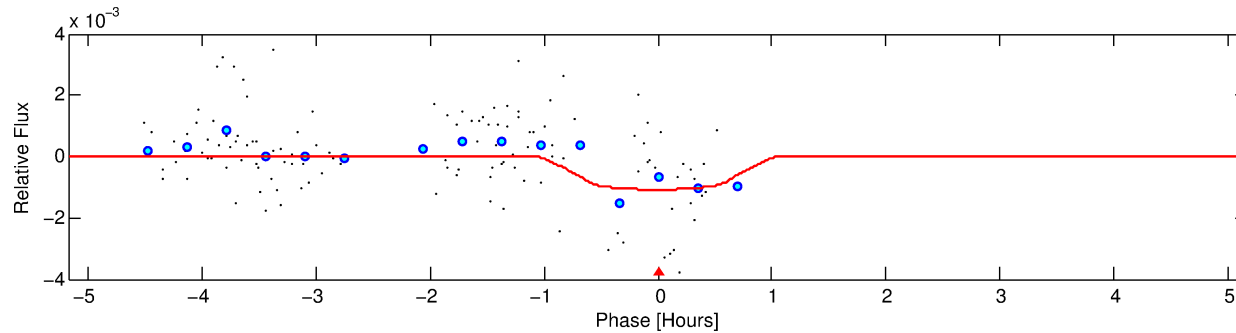
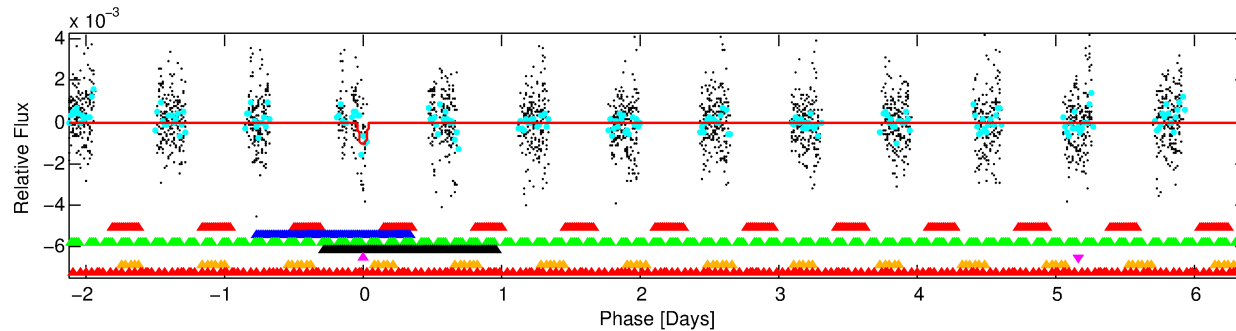
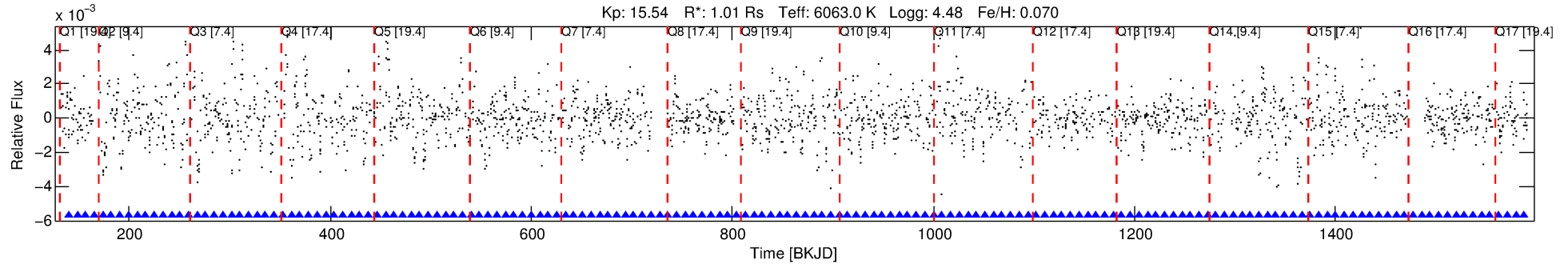
No Significant Match Found

DV One-Page Summary

KIC: 7976136 Candidate: 5 of 7 Period: 8.517 d

KOI: K06945 Corr: No Ephemeris Match

Kp: 15.54 R*: 1.01 Rs Teff: 6063.0 K Logg: 4.48 Fe/H: 0.070



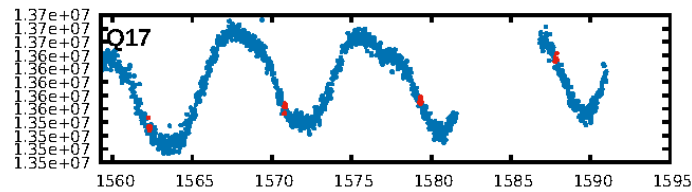
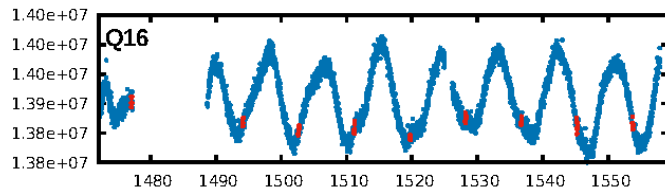
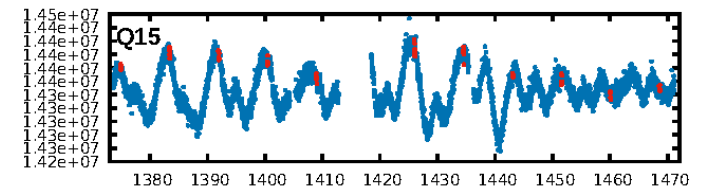
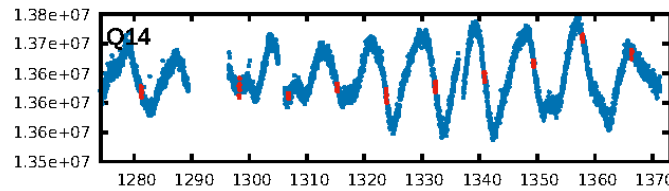
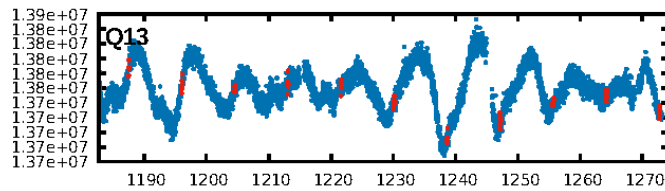
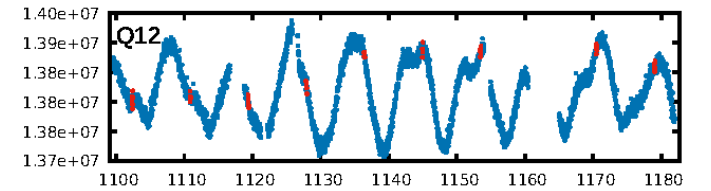
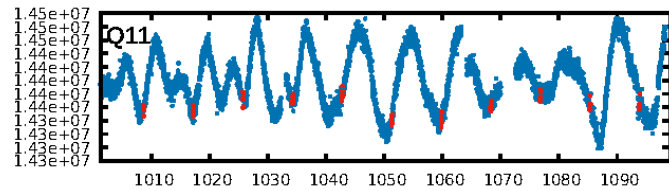
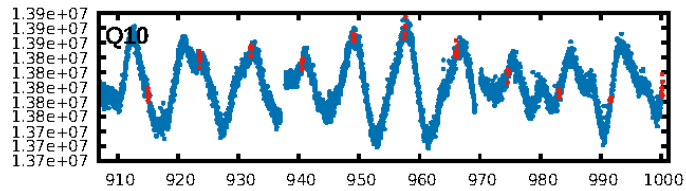
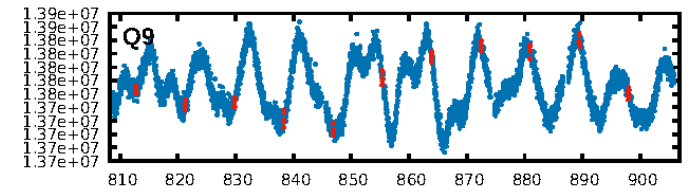
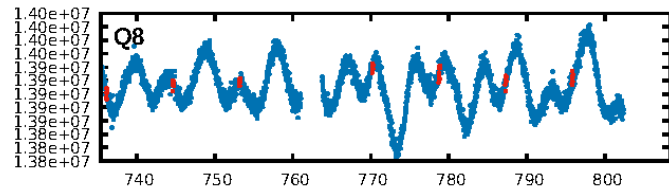
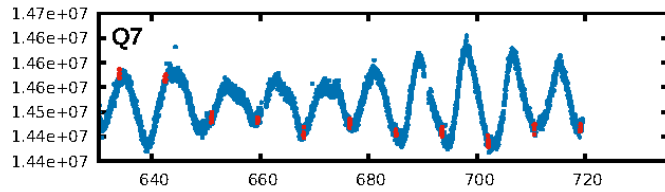
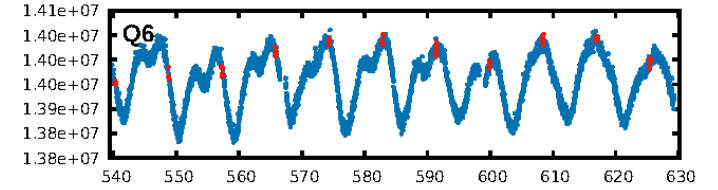
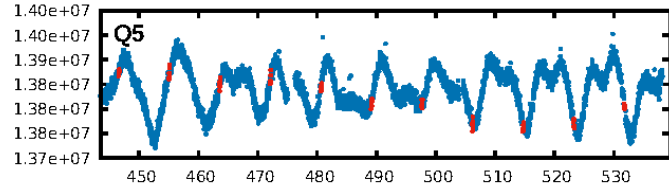
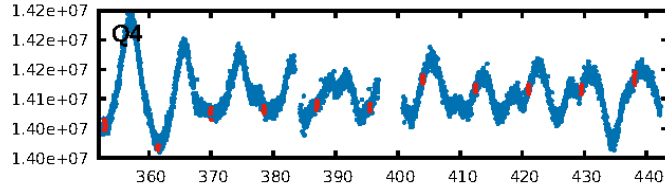
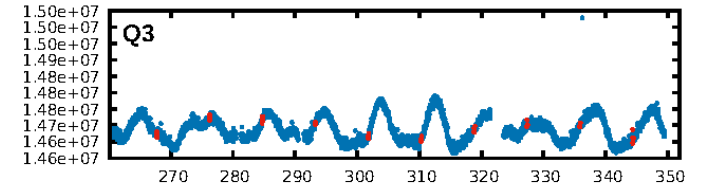
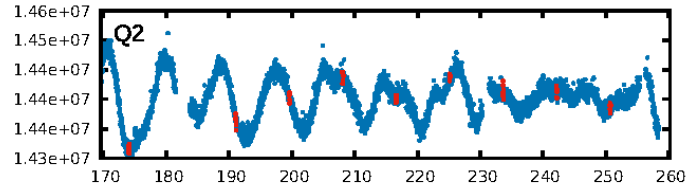
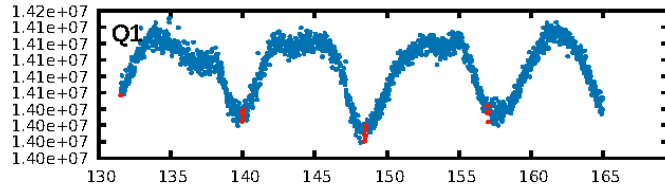
DV Fit Results:

Period = 8.51678 [0.00050] d
Epoch = 139.9848 [0.0164] BKJD
Rp/R* = 0.0327 [0.1032]
a/R* = 27.20 [400.69]
b = 0.74 [9.26]
Seff = 172.74 [65.03]
Teq = 924 [87] K
Rp = 3.61 [11.44] Re
a = 0.0847 [0.0203] AU
Ag = 268.60 [1699.59] [0.16σ]
Teff = 5786 [9141] K [0.53σ]

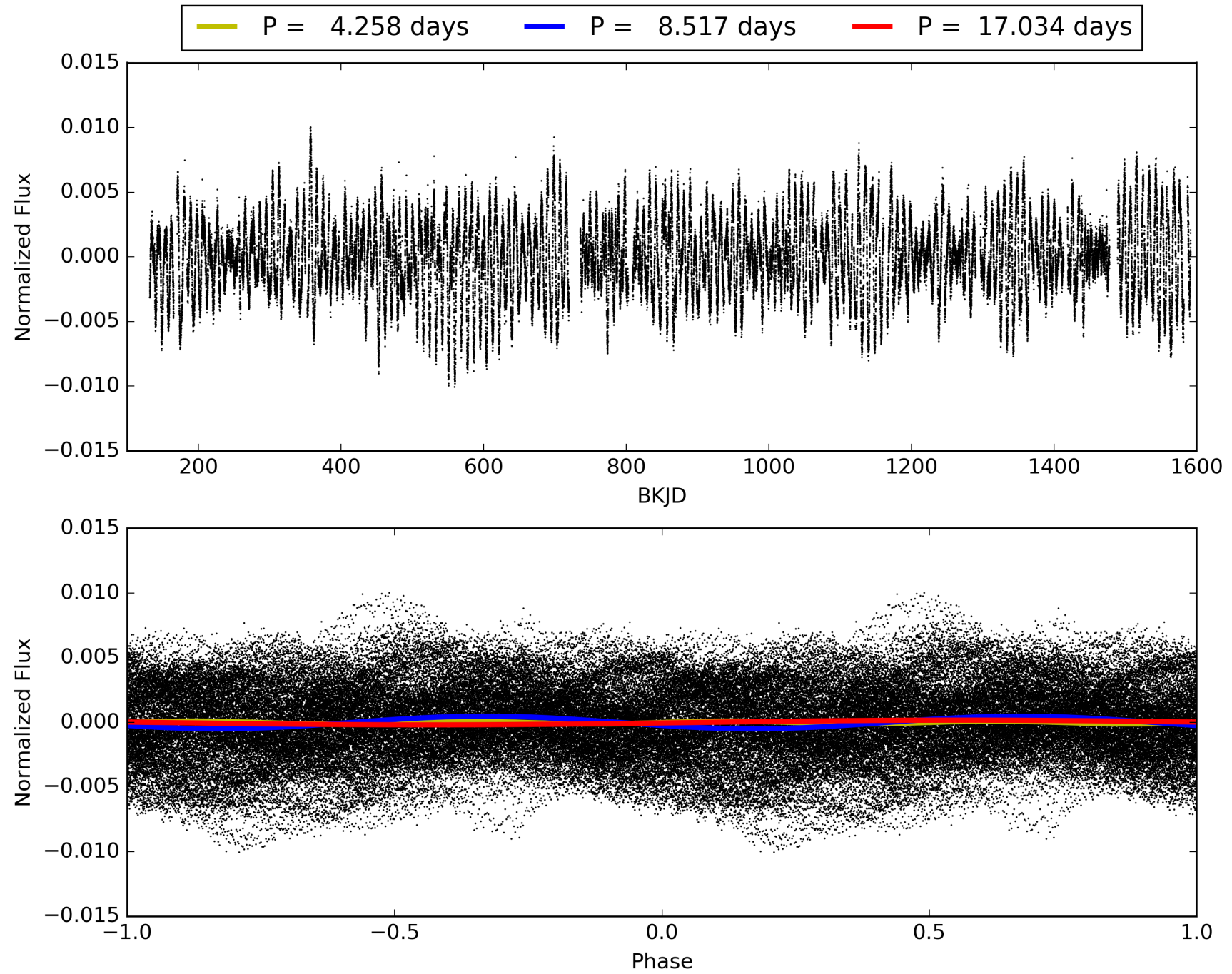
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [17.43σ]
LongPeriod-sig: 4.4% [0.06σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 52.1%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [28/28]
GhostDiagnostic-chr: -16.72
Centroid-sig: 13.8%
Centroid-so: 1.003 arcsec [2.15σ]
OotOffset-rm: 9.676 arcsec [138.75σ]
KicOffset-rm: 9.756 arcsec [141.77σ]
OotOffset-st: 0/0/3/0 [3]
KicOffset-st: 0/0/3/0 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 0.00 [0/17]

TCE 007976136-05, PDC Light Curves

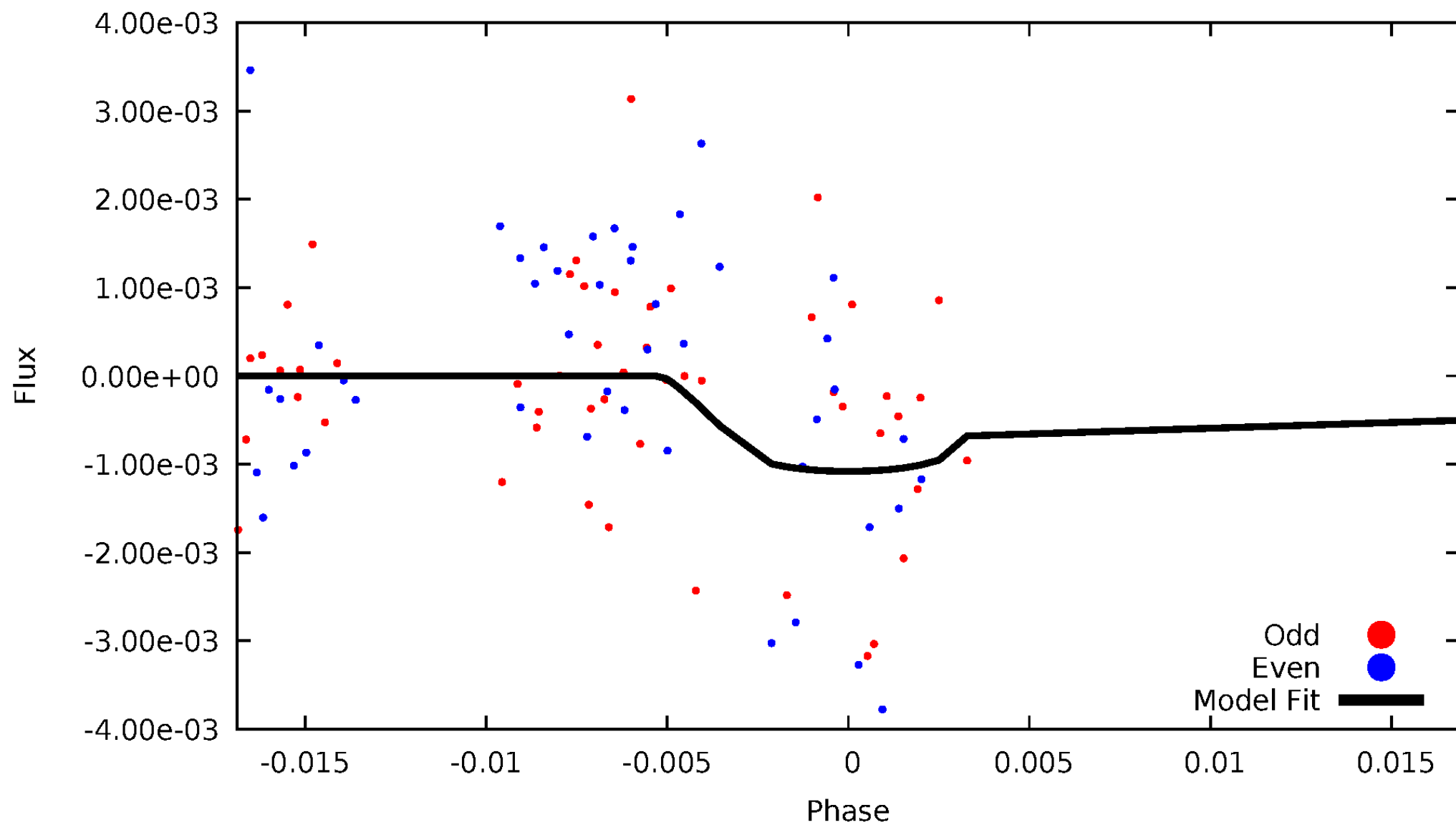


TCE 007976136-05



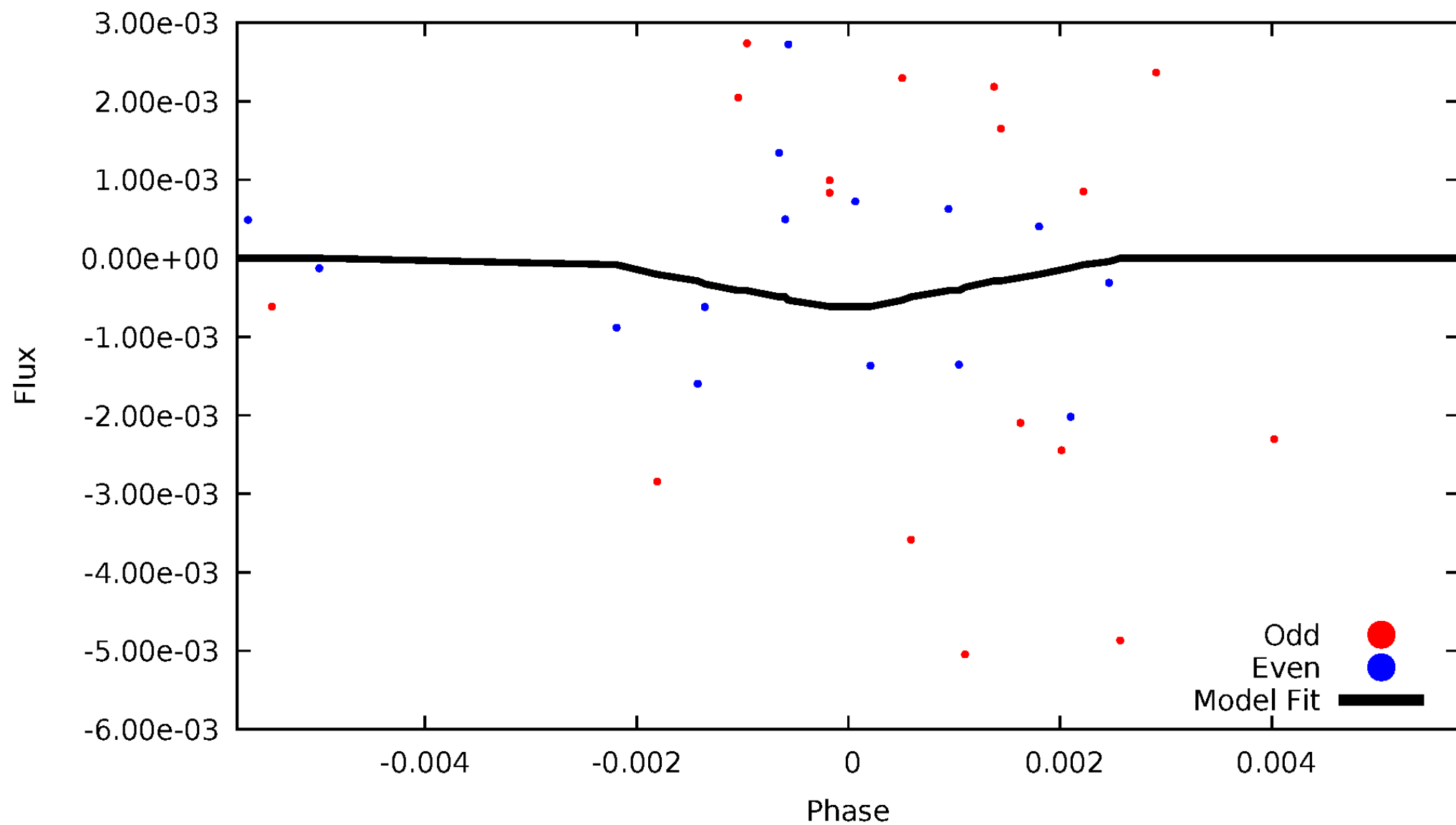
DV Odd/Even

TCE 007976136-05



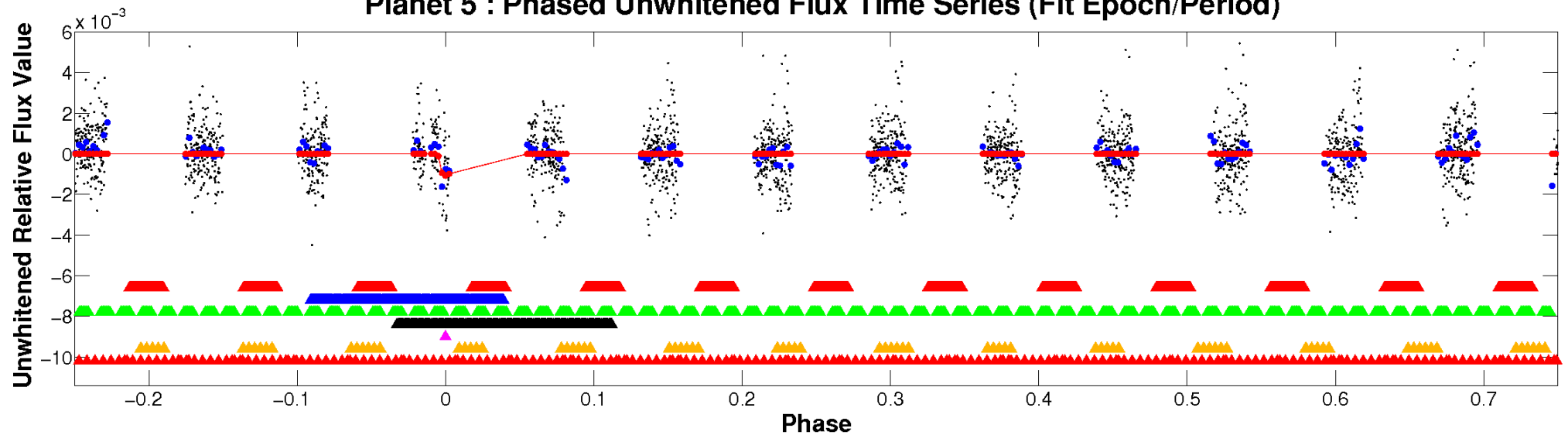
ALT Odd/Even

TCE 007976136-05

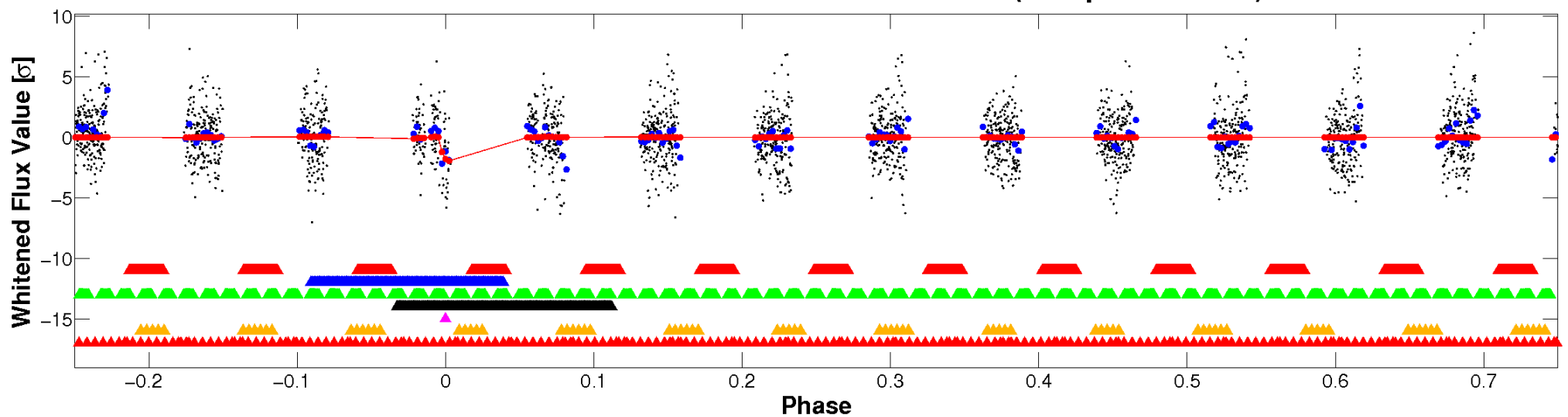


Non-Whitened Vs. Whitened Light Curve

Planet 5 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

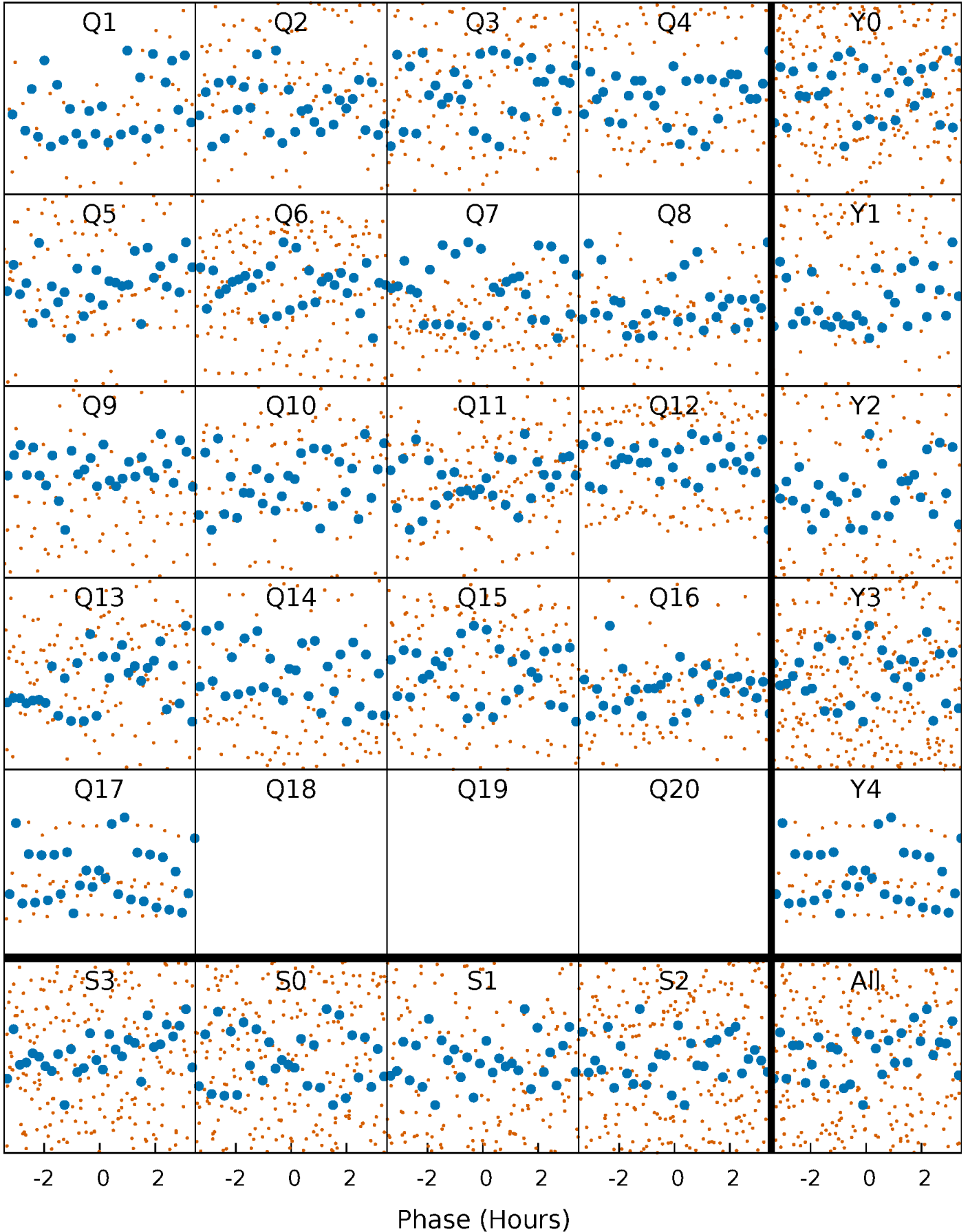


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



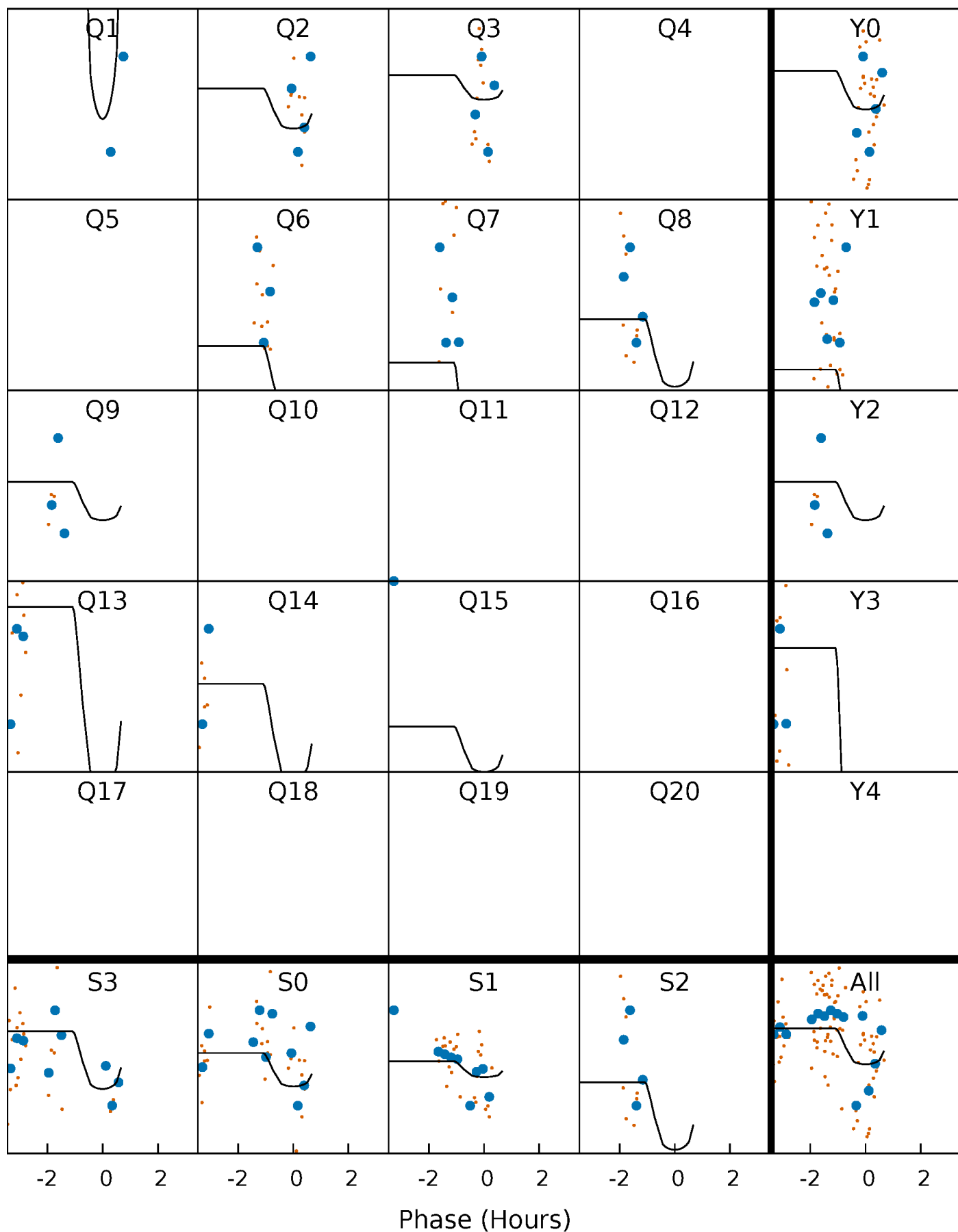
PDC Quarter-Phased Transit Curves

TCE 007976136-05 P= 8.516783 Days $T_0=139.984758$ (BKJD)



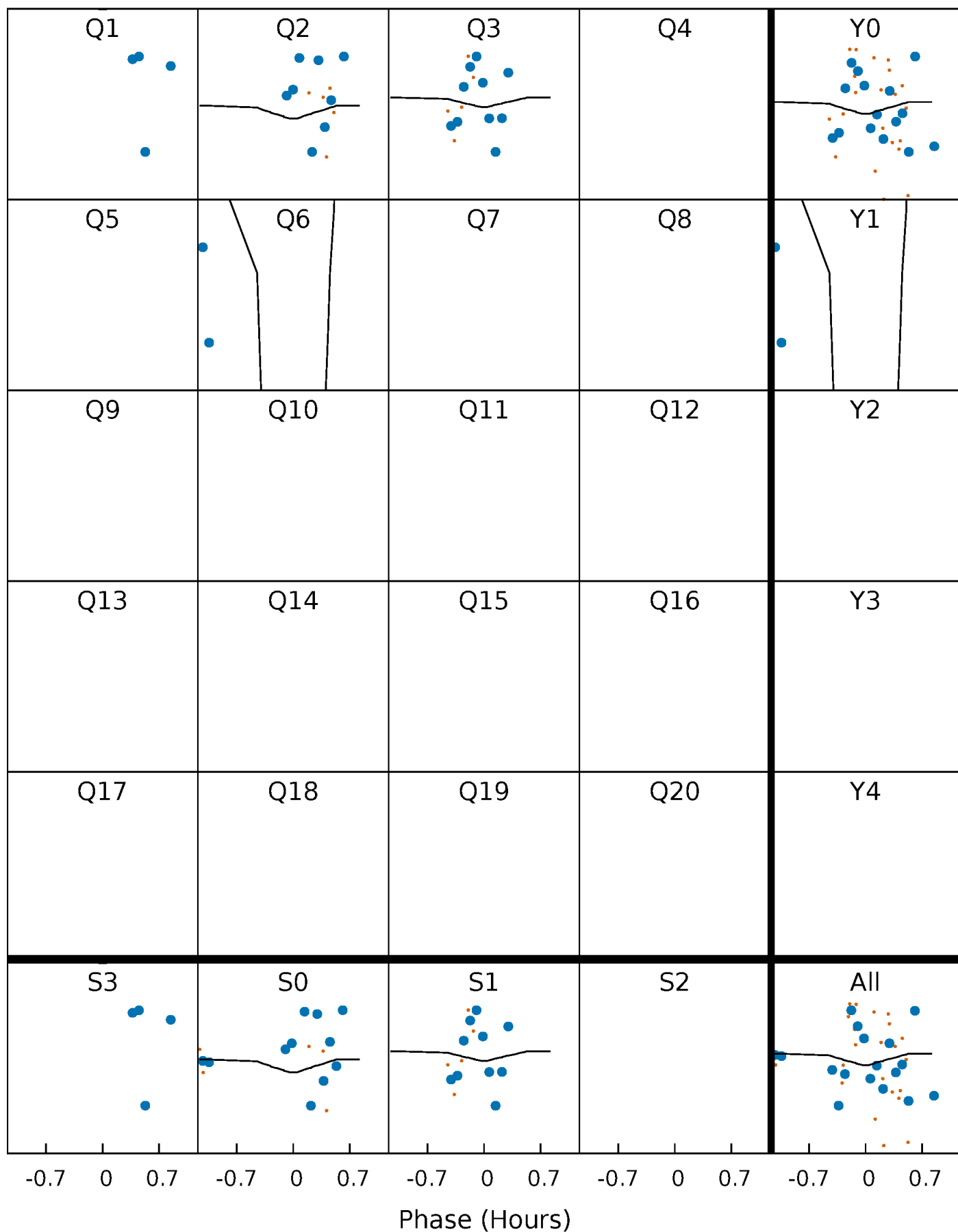
DV Quarter-Phased Transit Curves

TCE 007976136-05 $P = 8.516783$ Days $T_0 = 139.984758$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

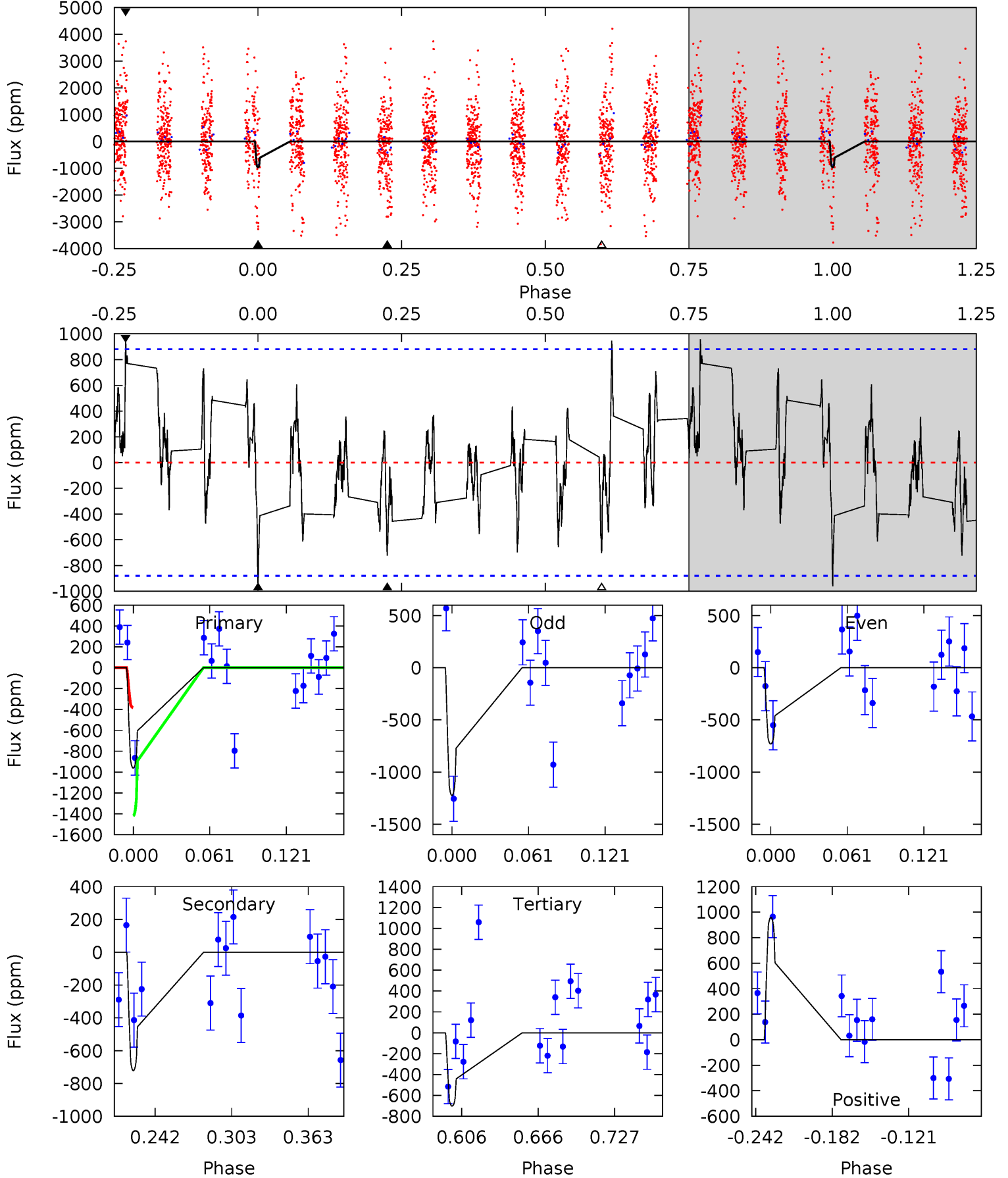
TCE 007976136-05 $P = 8.517149$ Days $T_0 = 139.978405$ (BKJD)



DV Model-Shift Uniqueness Test

007976136-05, P = 8.516783 Days, E = 131.467975 Days

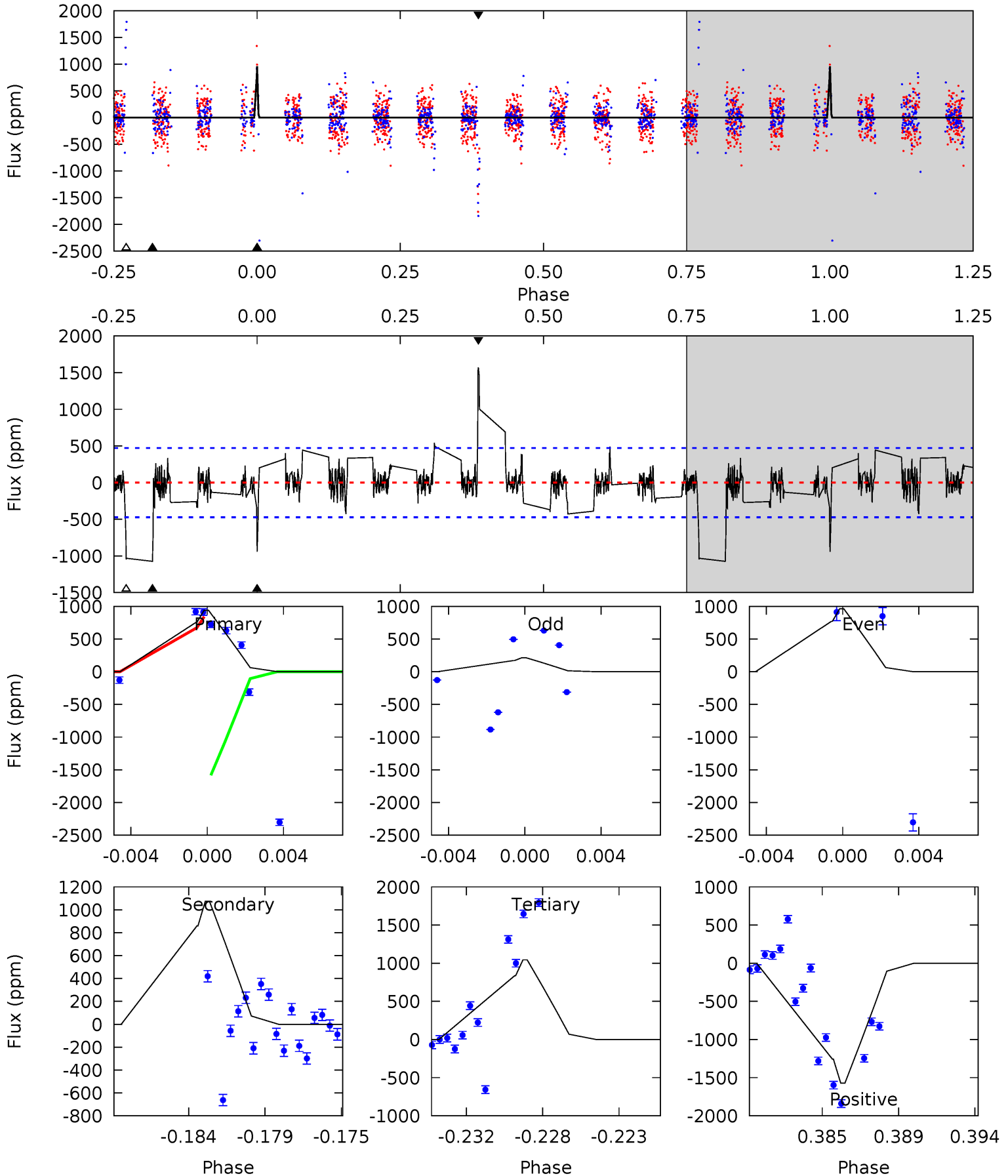
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.09	3.83	3.72	5.09	4.67	1.88	1.66	1.37	0.01	0.11	-1.26	1.35	1.82	0.50	2.80



Alt Model-Shift Uniqueness Test

007976136-05, P = 8.517149 Days, E = 131.461256 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.3	11.8	11.4	17.2	5.18	2.85	1.61	-1.14	-6.91	0.33	-5.45	4.06	-0.40	0.59	3.91



Stellar Parameters For KIC 007976136

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6063^{+169}_{-211}	$4.476^{+0.048}_{-0.192}$	$0.070^{+0.200}_{-0.350}$	$1.012^{+0.286}_{-0.114}$	$1.117^{+0.120}_{-0.174}$	$1.519^{+0.379}_{-0.737}$
	+3%/-3%	+1%/-4%	+286%/-500%	+28%/-11%	+11%/-16%	+25%/-49%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 007976136-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-722±189	$9.71^{+9.89}_{-6.57}$	1316^{+100}_{-60}	3790^{+2255}_{-757}	29^{+247}_{-22}
Alt.	-1074±91	$8.79^{+9.96}_{-5.81}$	1319^{+99}_{-67}	4210^{+2706}_{-927}	52^{+407}_{-40}

T_{max} = Theoretical Maximum Planetary Temperature
 T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
 A_{obs} = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

DV Centroid Data

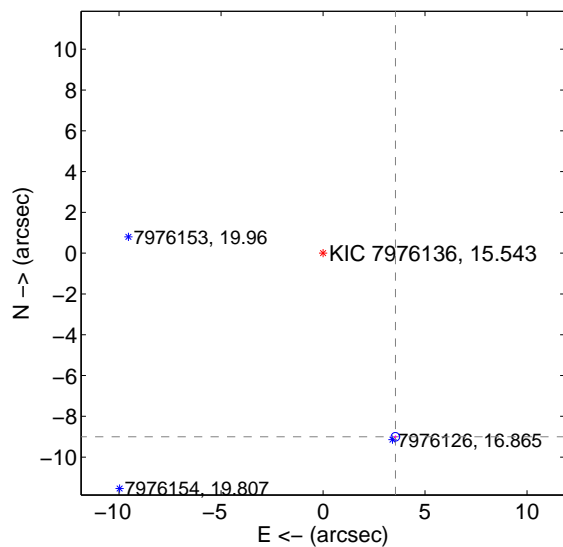
Supplemental centroid analysis for 007976136-05. Kepler magnitude: 15.54. Transit SNR 9.43

There are 2 quarters with good PRF difference image offsets

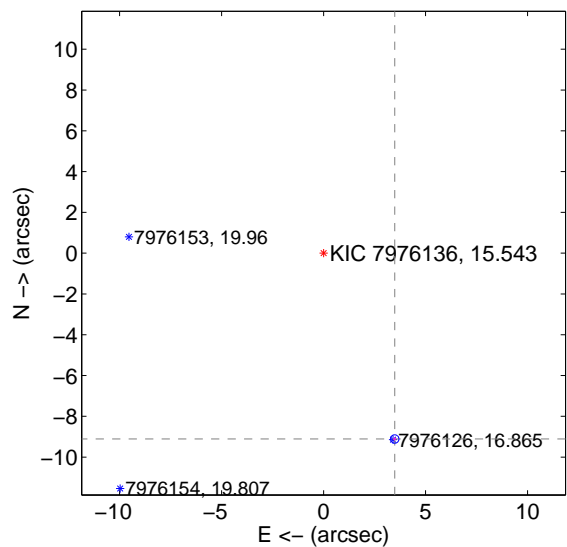
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	9.676 ± 0.070	138.75	-3.549 ± 0.072	-9.002 ± 0.069
PRF-fit source offset from KIC position	9.756 ± 0.069	141.77	-3.488 ± 0.070	-9.111 ± 0.069
photometric centroid source offset	1.00 ± 0.47	2.15	0.30 ± 0.33	-0.96 ± 0.48

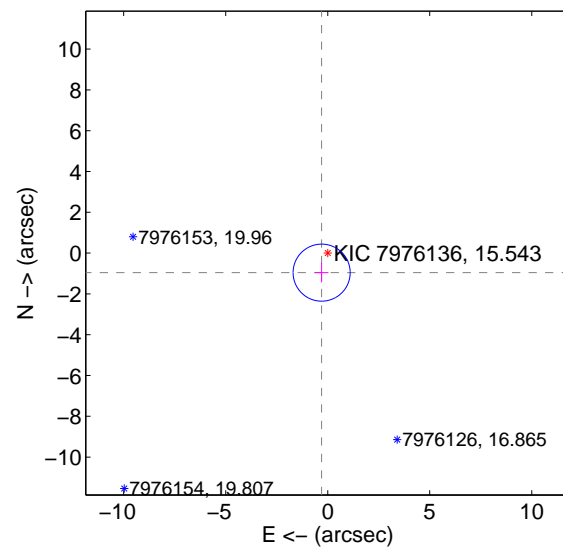
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

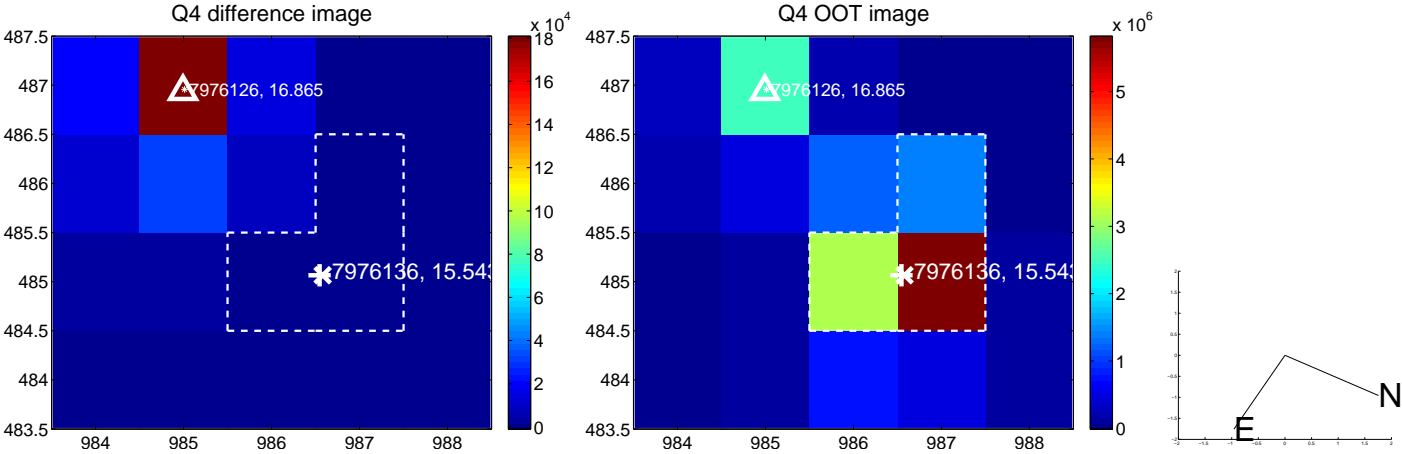
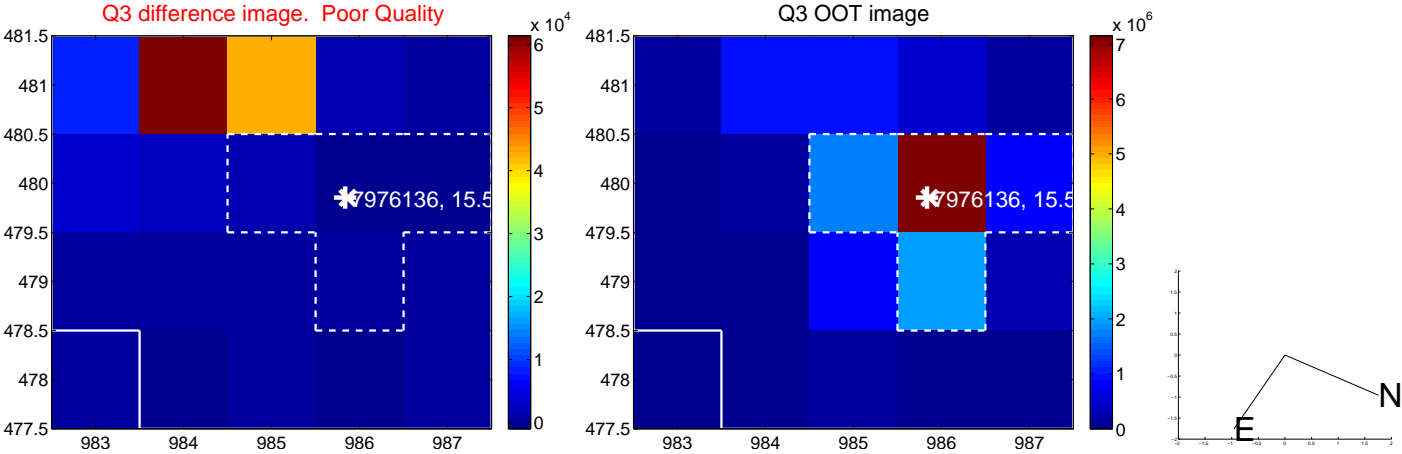
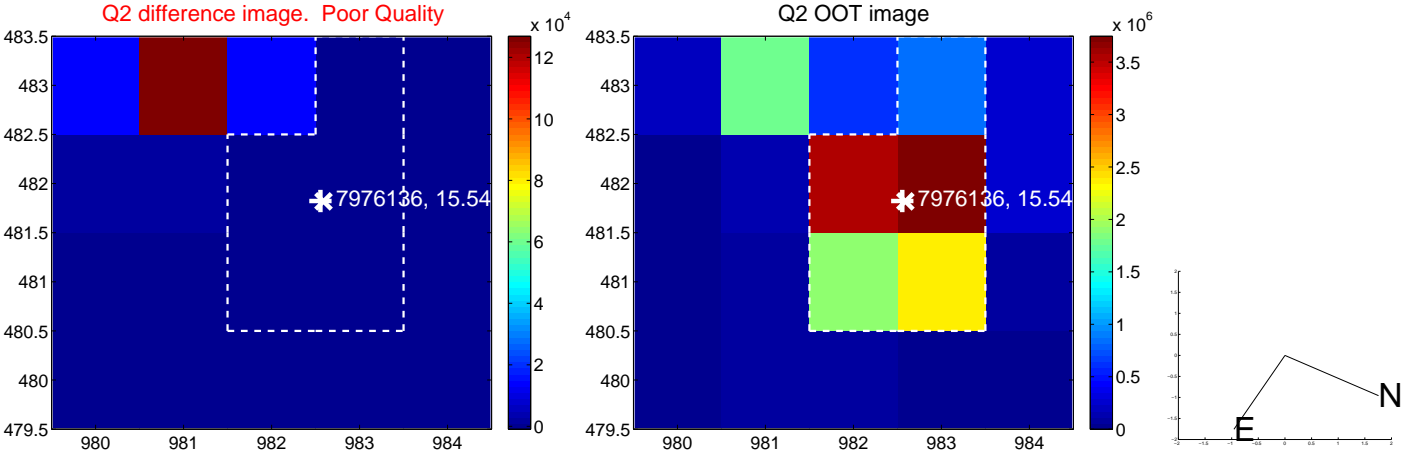
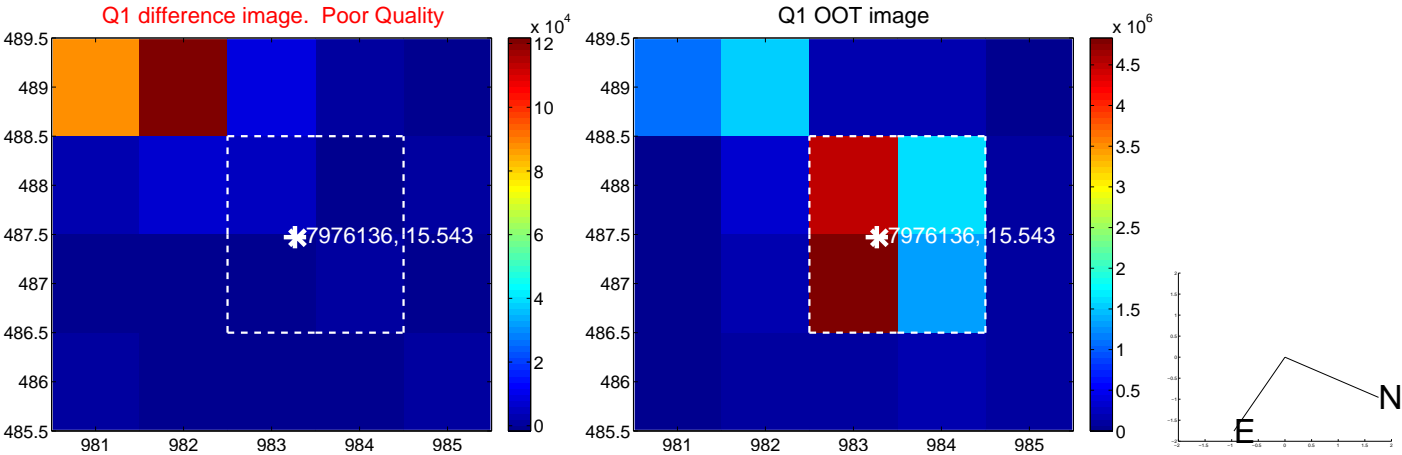


offset from photometric centroids

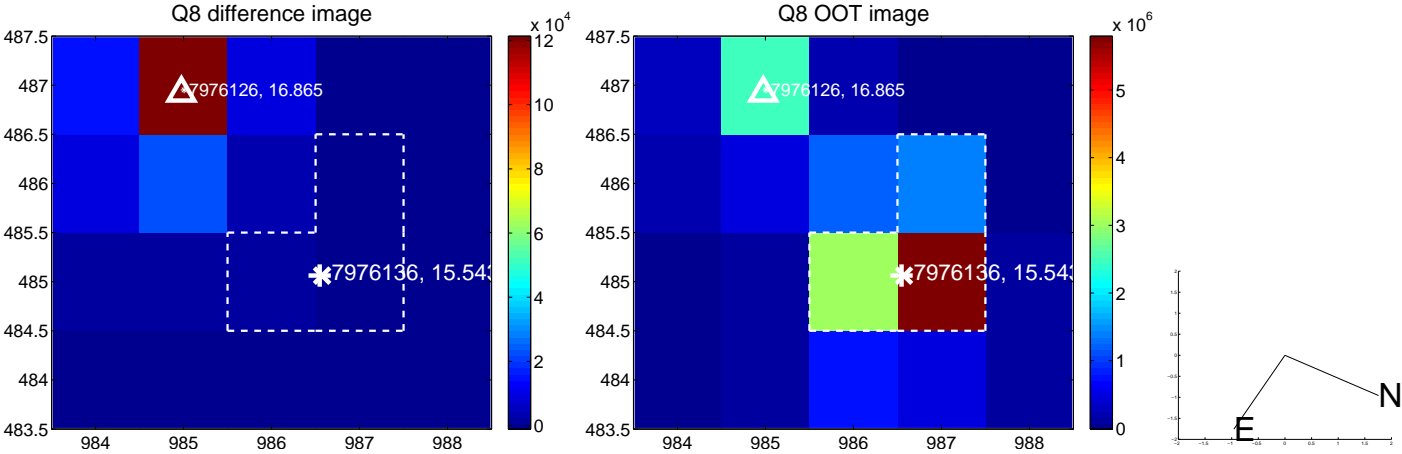
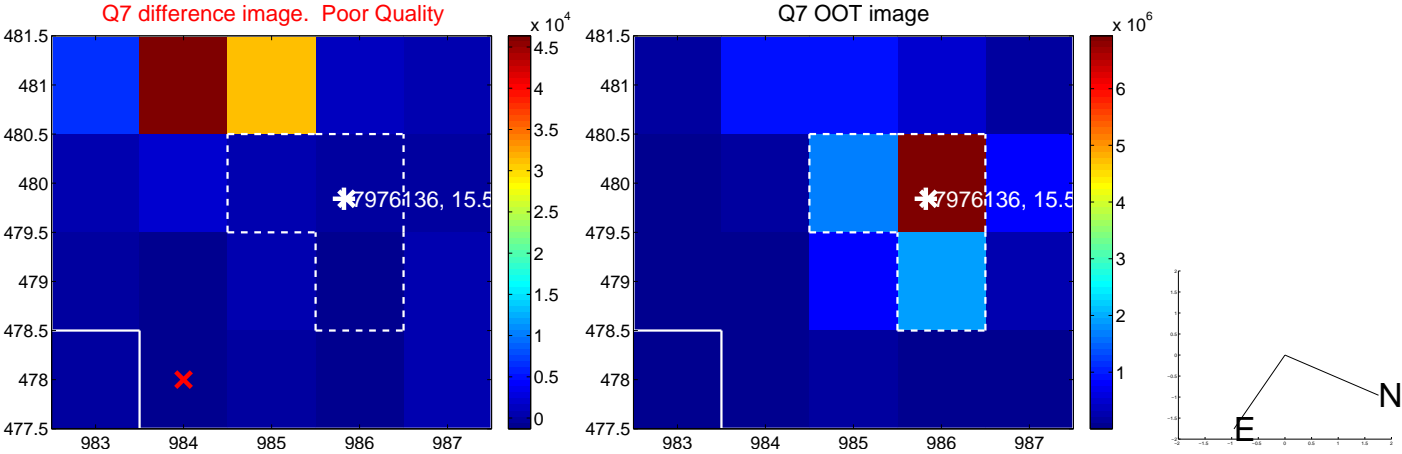
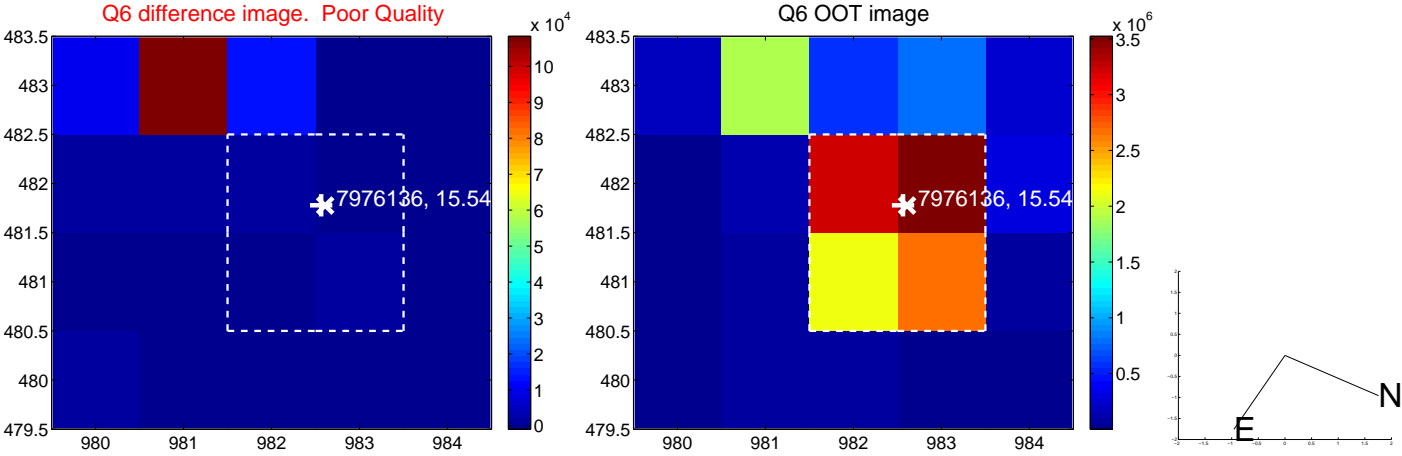
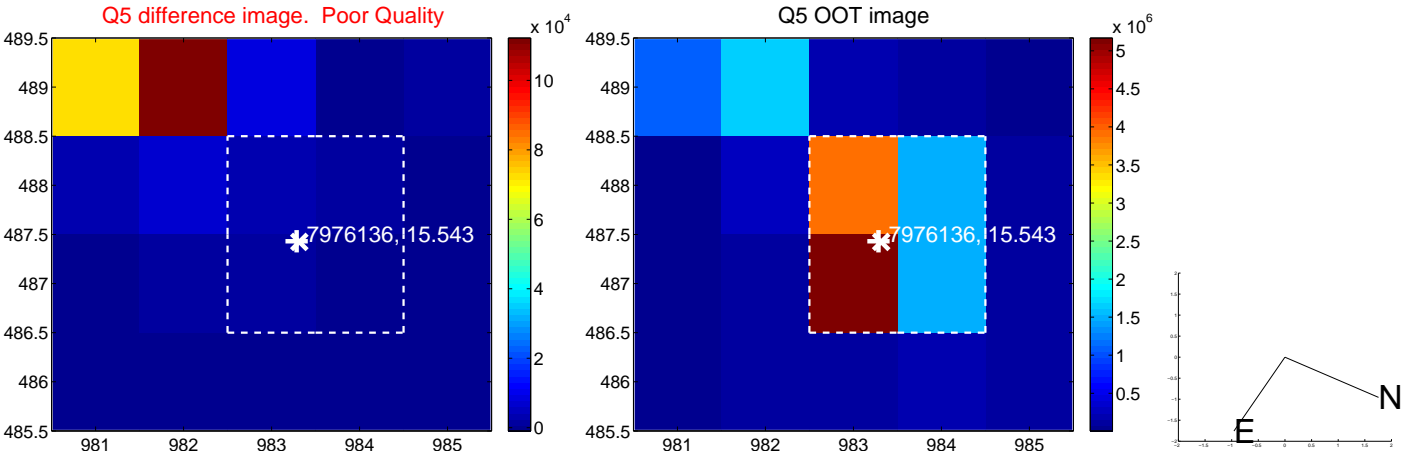


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs $> 15,000,000$ are from the UKIRT catalog.

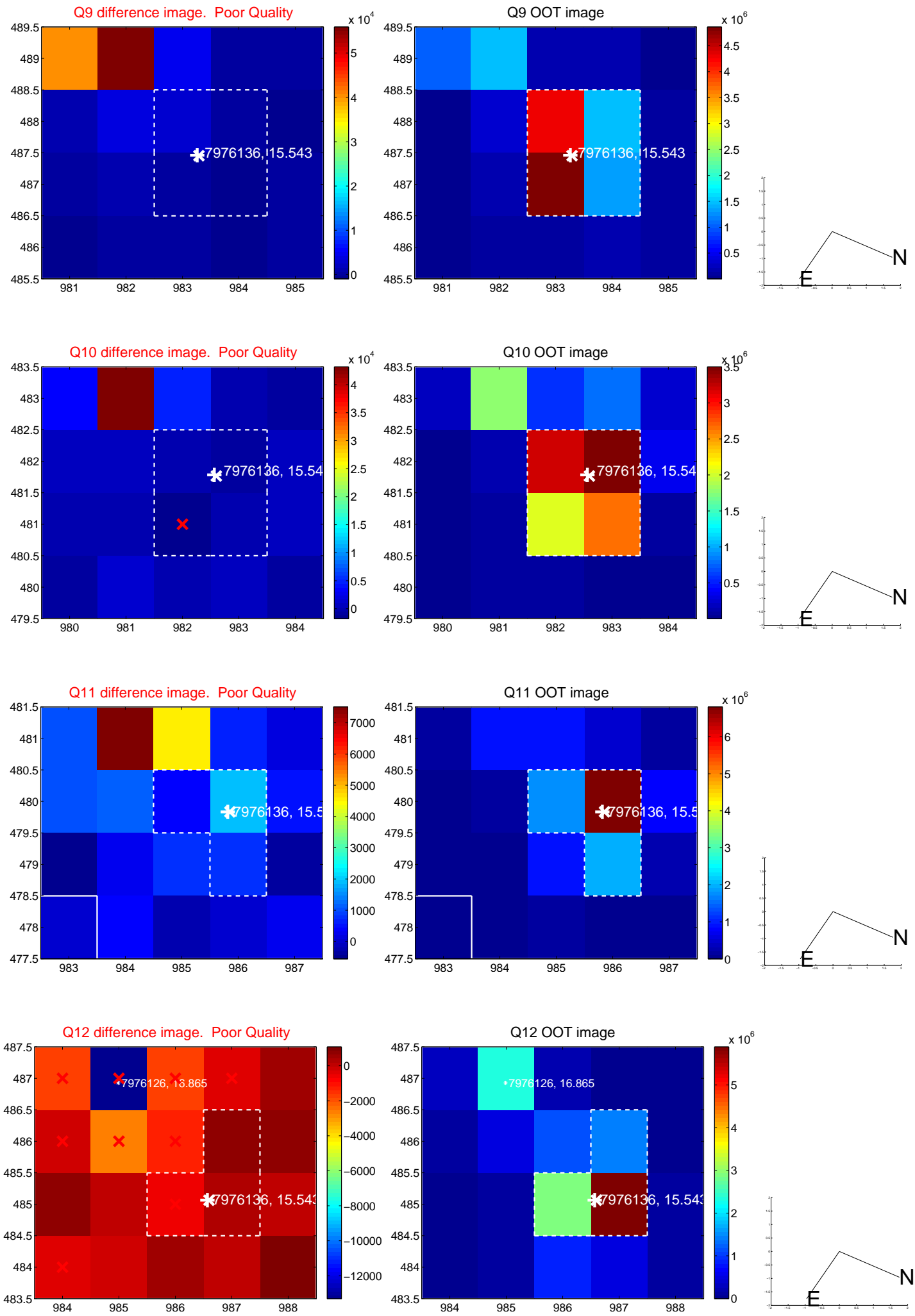
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



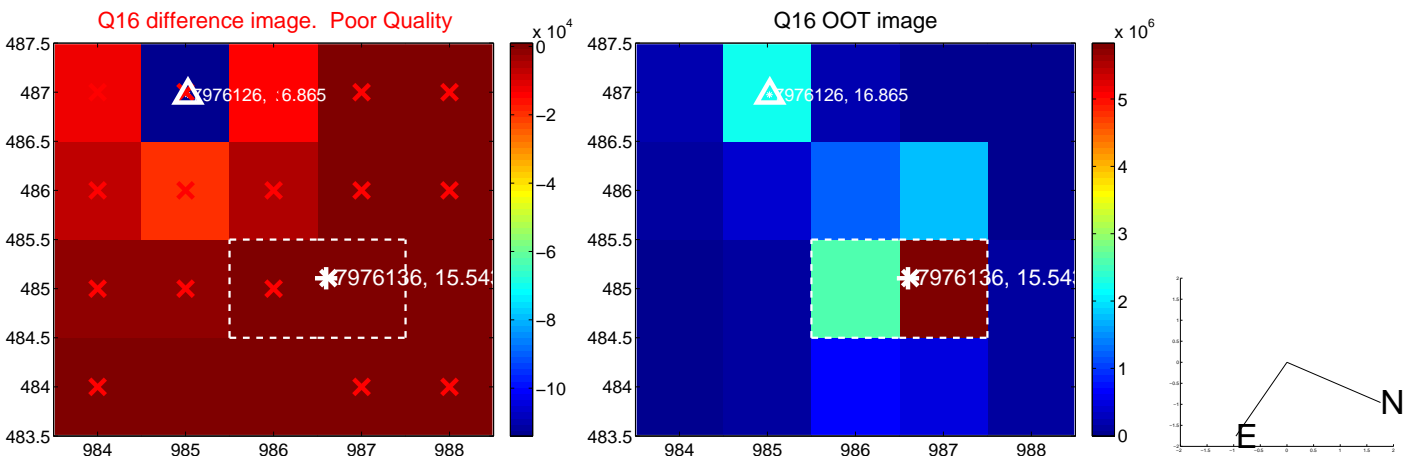
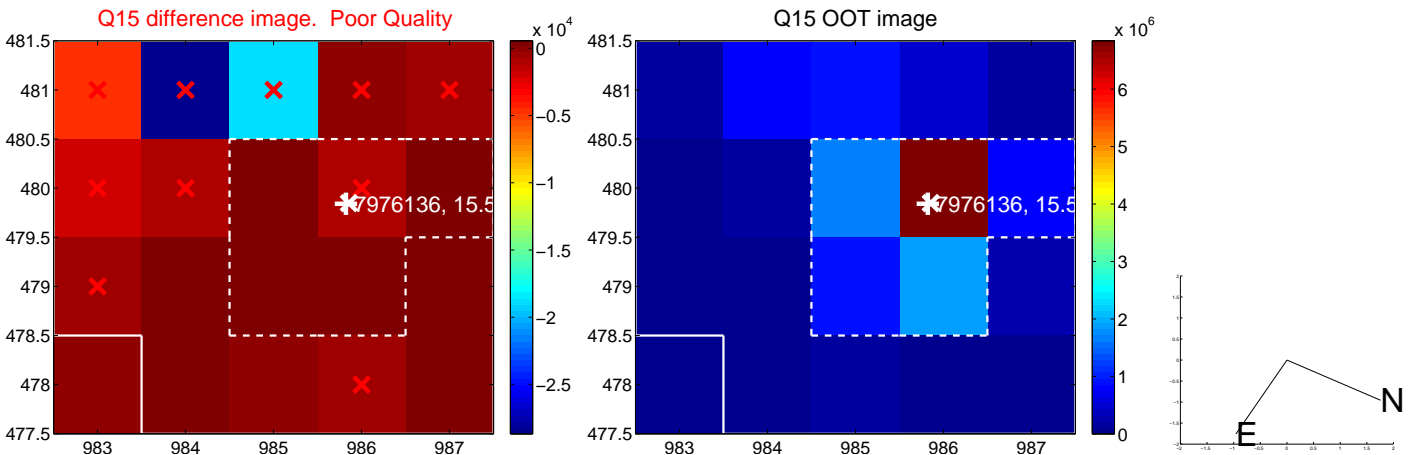
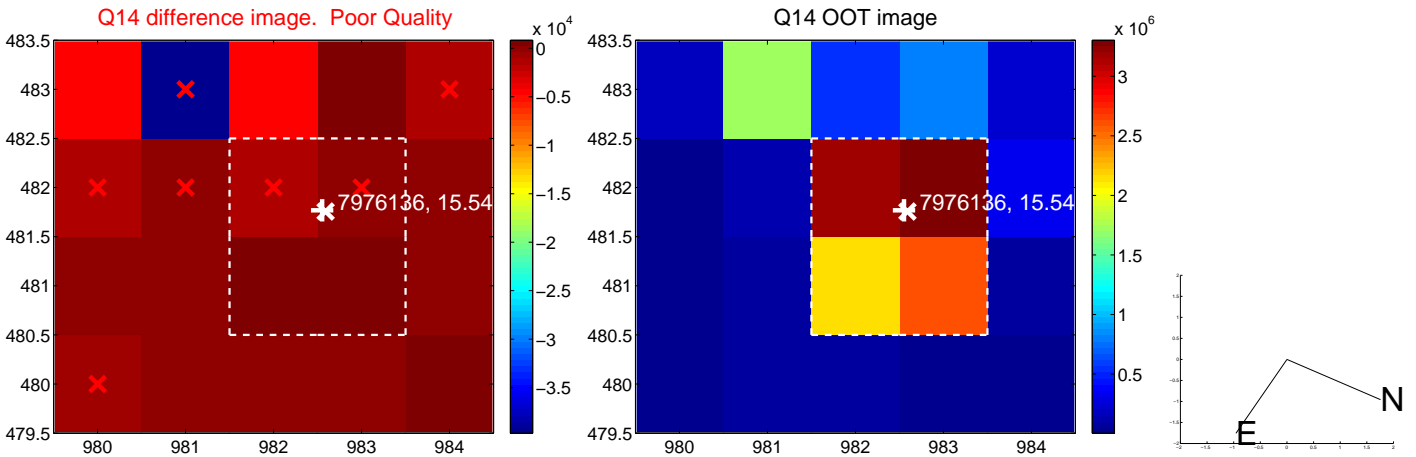
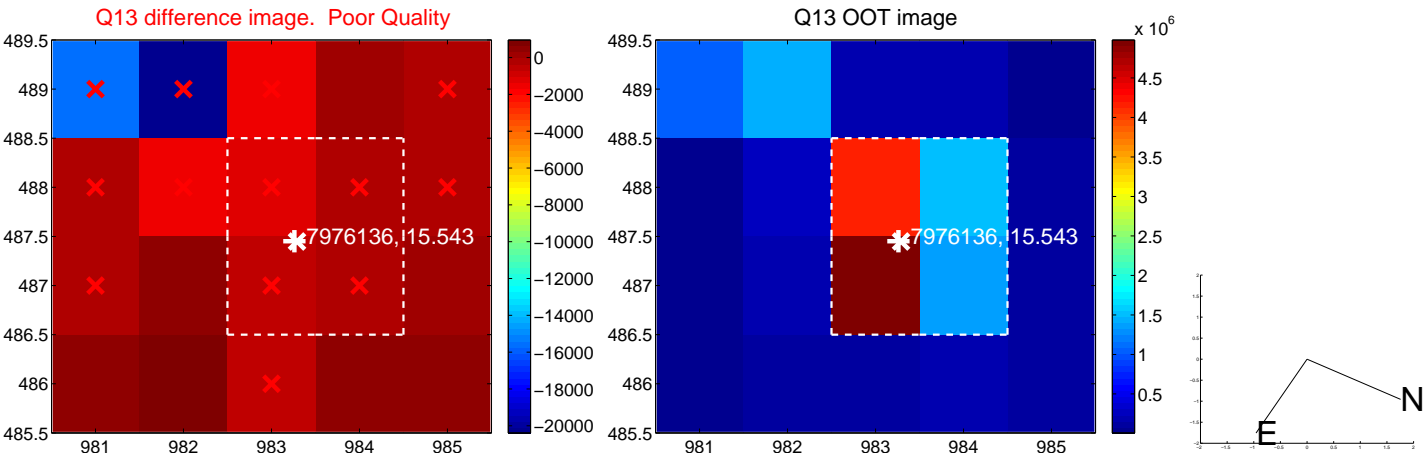
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



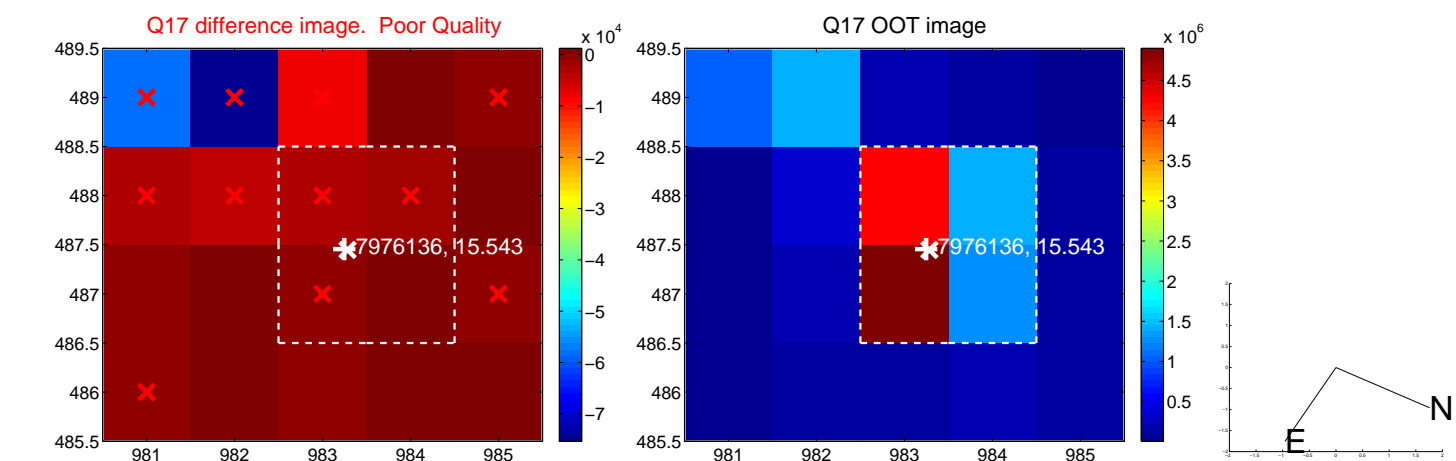
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



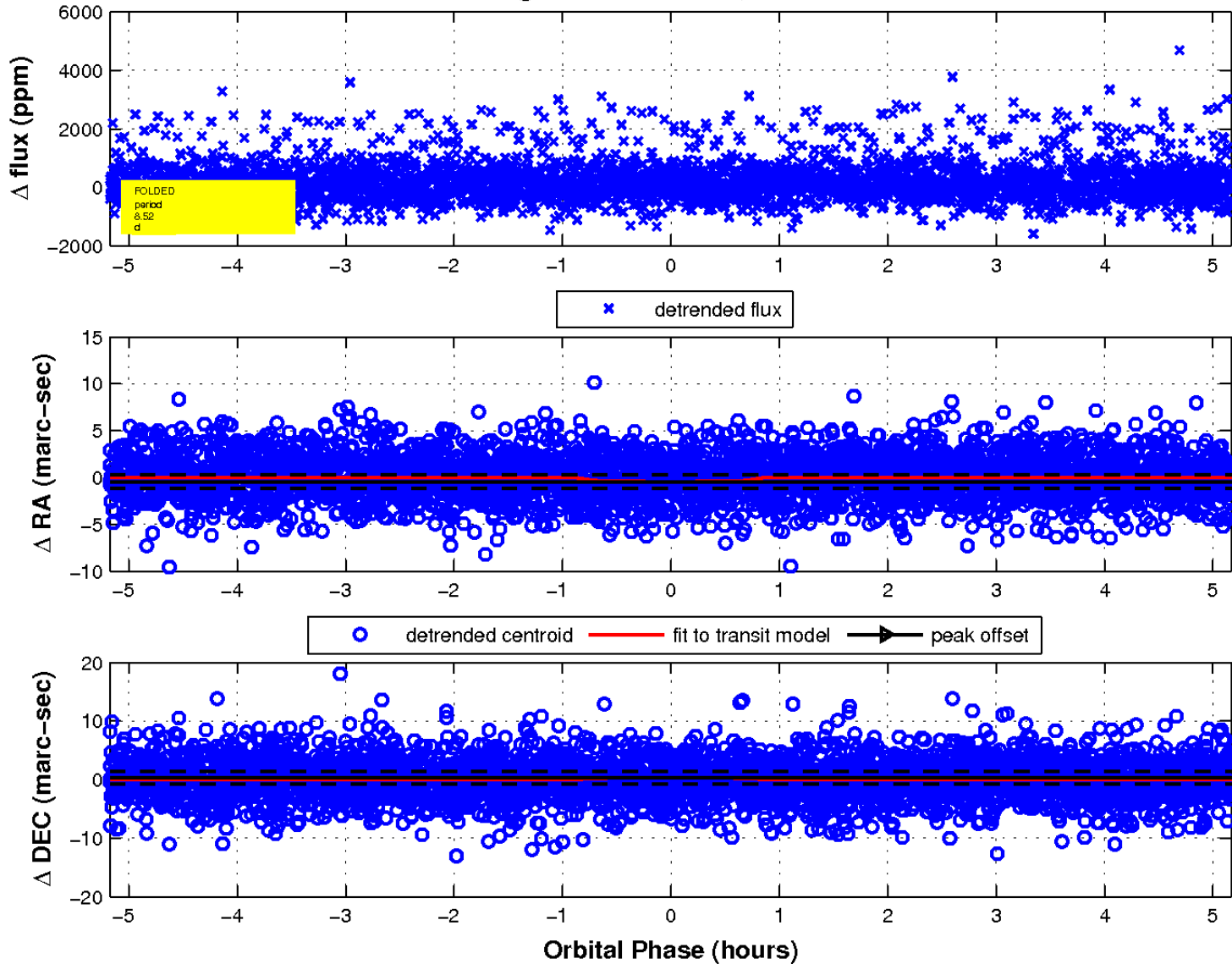
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

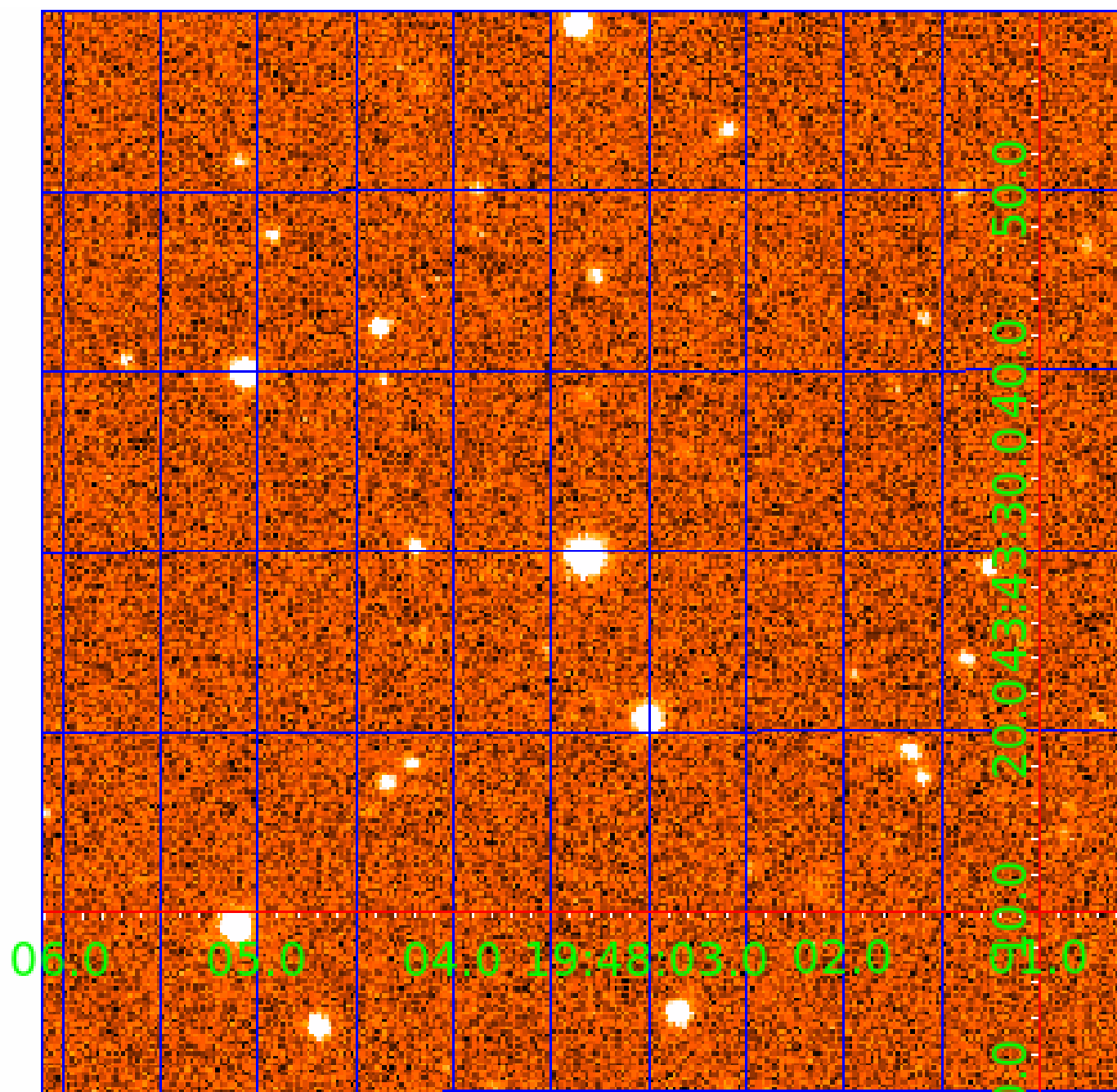


fluxWeightedCentroids, Planet 5 of 7



UKIRT Image

Declination



KIC 007976136

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
007976136-01	OBS	6945.01	0.655049	131.814383	59.3	4.828	11.4	11.4	1.01	6063	0.85	5281.21
007976136-02	OBS	No	8.523290	139.211373	2333.8	2.215	14.4	12.7	1.01	6063	8.64	172.57
007976136-03	OBS	No	2.638898	131.941117	357.0	1.273	13.5	4.4	1.01	6063	2.09	823.89
007976136-04	OBS	No	8.524035	139.705953	552.2	1.544	11.8	3.3	1.01	6063	2.62	172.55
007976136-05	OBS	No	8.516783	139.984758	1079.9	1.725	11.5	9.4	1.01	6063	3.61	172.74
007976136-06	OBS	No	18.860961	136.995460	2903.2	1.578	11.8	12.0	1.01	6063	8.65	59.84
007976136-07	OBS	No	6.310436	134.964120	1042.8	2.500	8.2	-1.0	1.01	6063	3.26	257.64

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007976136-01	OBS	FP	0.00	0	1	1	0	MOD_SEC_ALT—CENT_RESOLVED_OFFSET
007976136-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_RESOLVED_OFFSET
007976136-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—CENT_RESOLVED_OFFSET
007976136-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_RESOLVED_OFFSET
007976136-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_TER_ALT—MOD_POS_ALT—CENT_RESOLVED_OFFSET
007976136-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—CENT_RESOLVED_OFFSET
007976136-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

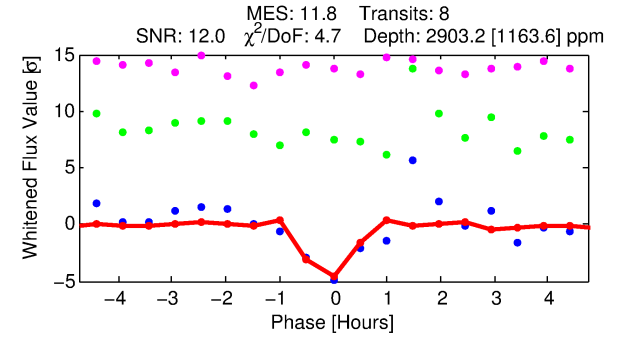
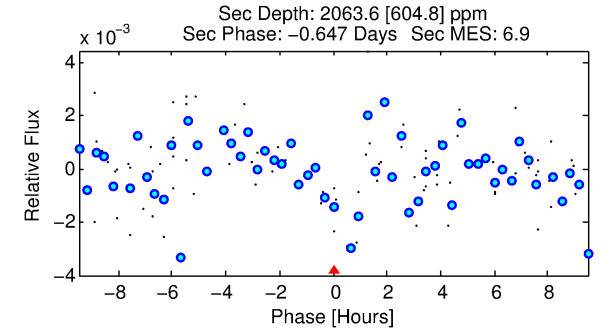
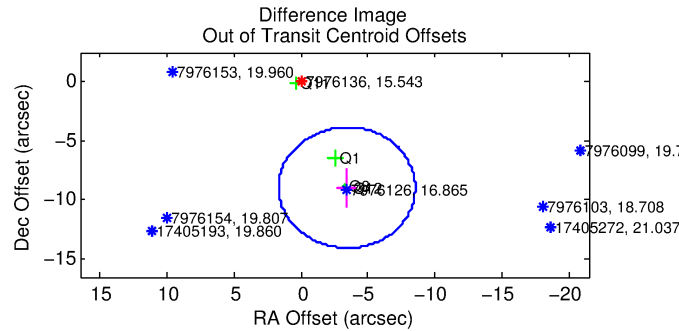
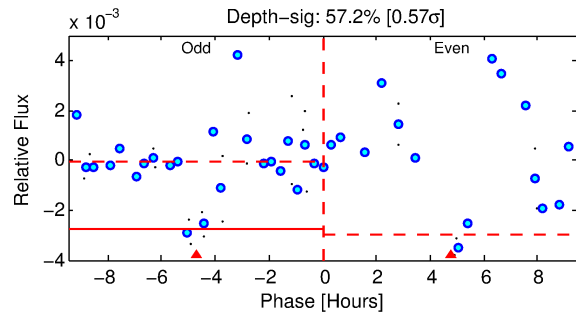
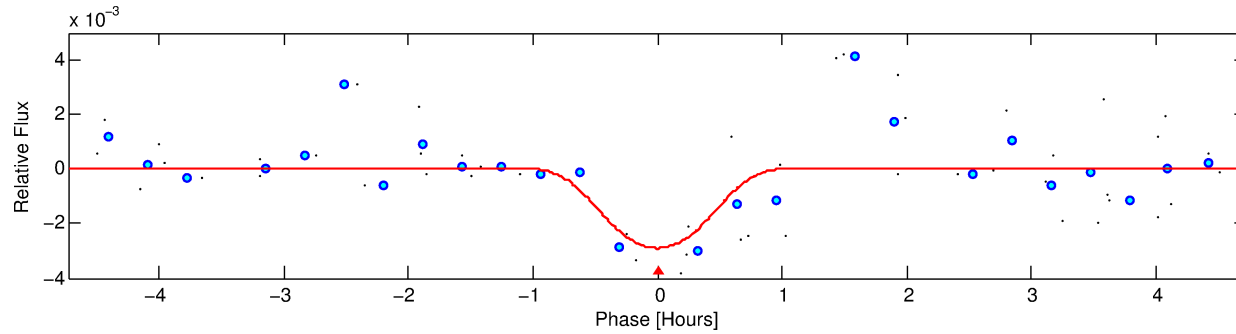
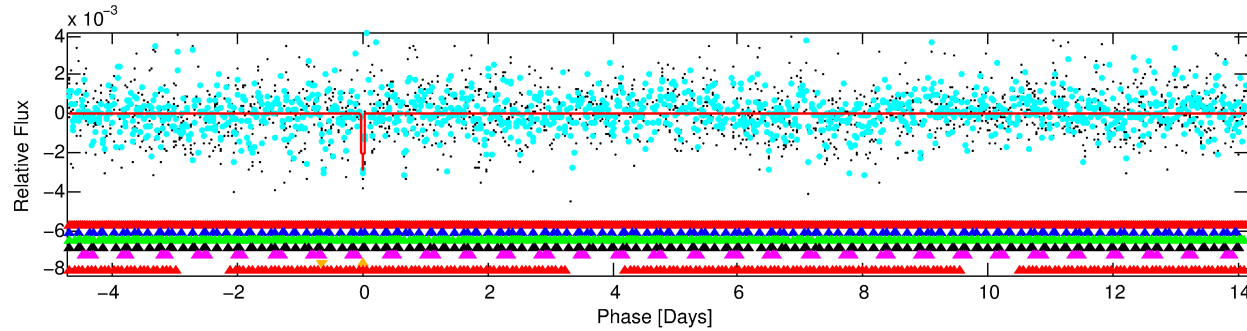
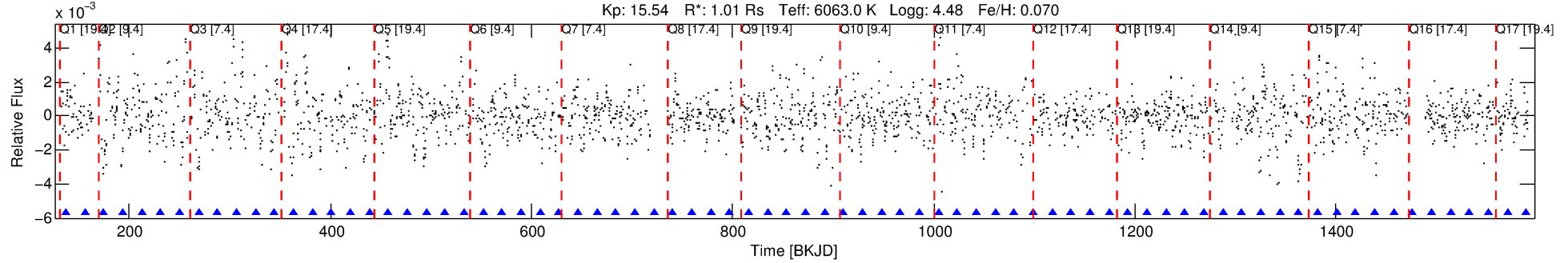
Ephemeris Match Information For 007976136-06

No Significant Match Found

DV One-Page Summary

KIC: 7976136 Candidate: 6 of 7 Period: 18.861 d
KOI: K06945 Corr: No Ephemeris Match

Kp: 15.54 R*: 1.01 Rs Teff: 6063.0 K Logg: 4.48 Fe/H: 0.070



DV Fit Results:

Period = 18.86096 [0.00022] d
Epoch = 136.9955 [0.0095] BKJD
Rp/R* = 0.0783 [1.4221]
a/R* = 42.04 [223.62]
b = 0.98 [2.45]
Seff = 59.84 [22.53]
Teq = 709 [67] K
Rp = 8.65 [157.06] Re
a = 0.1439 [0.0344] AU
Ag = 314.30 [11411.77] [0.03σ]
Teffp = 4617 [41907] K [0.09σ]

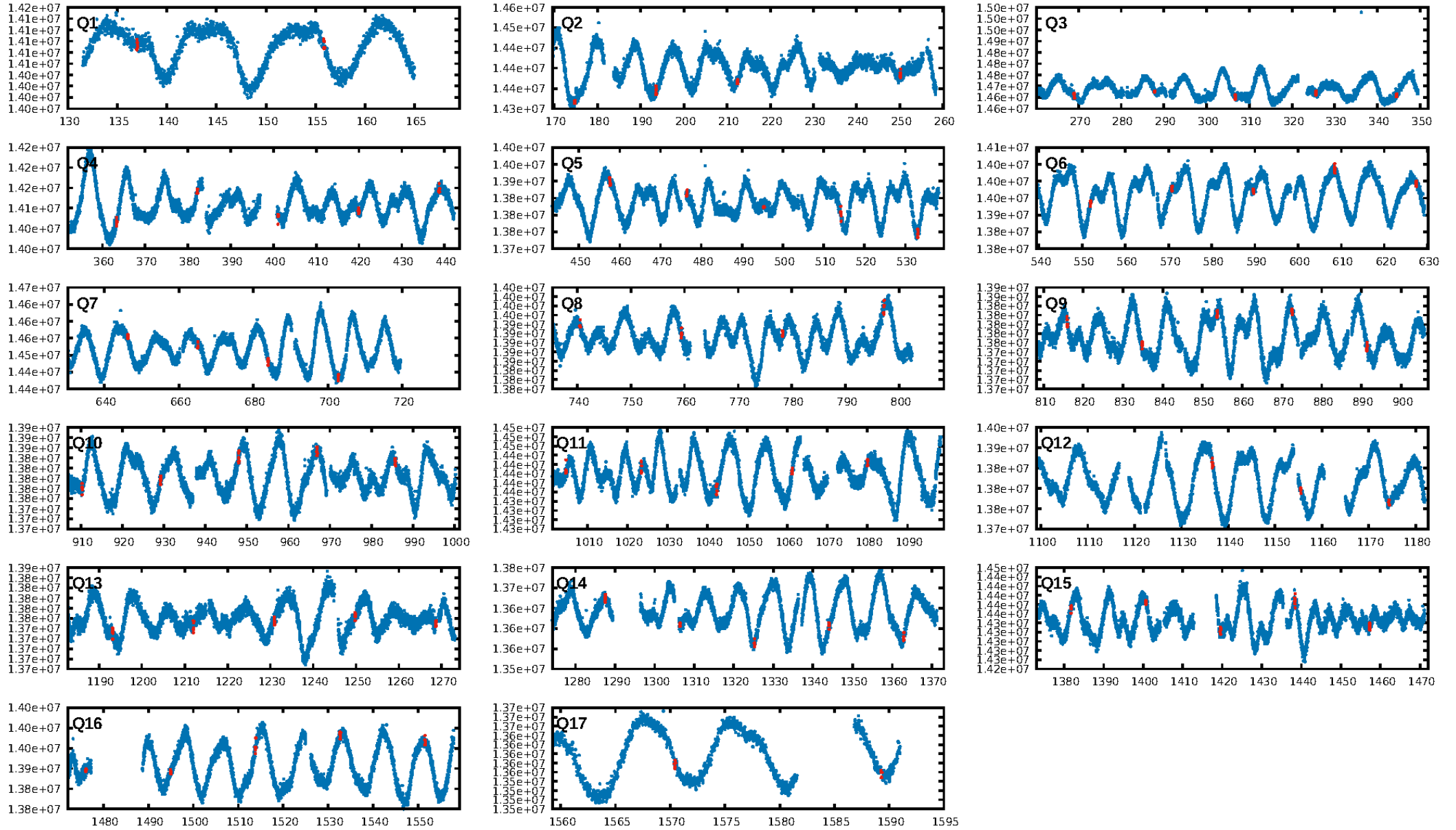
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [112.39σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 3.2%
ModelChiSquareGof-sig: 92.3%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [8/8]
GhostDiagnostic-chr: 1.362
Centroid-sig: 63.1%
Centroid-so: 0.629 arcsec [1.95σ]
OotOffset-rm: 9.578 arcsec [5.63σ]
KicOffset-rm: 9.665 arcsec [4.66σ]
OotOffset-st: 0/1/2/1 [4]
KicOffset-st: 0/1/2/1 [4]
DiffImageQuality-fgm: 0.50 [2/4]
DiffImageOverlap-fno: 0.06 [1/17]

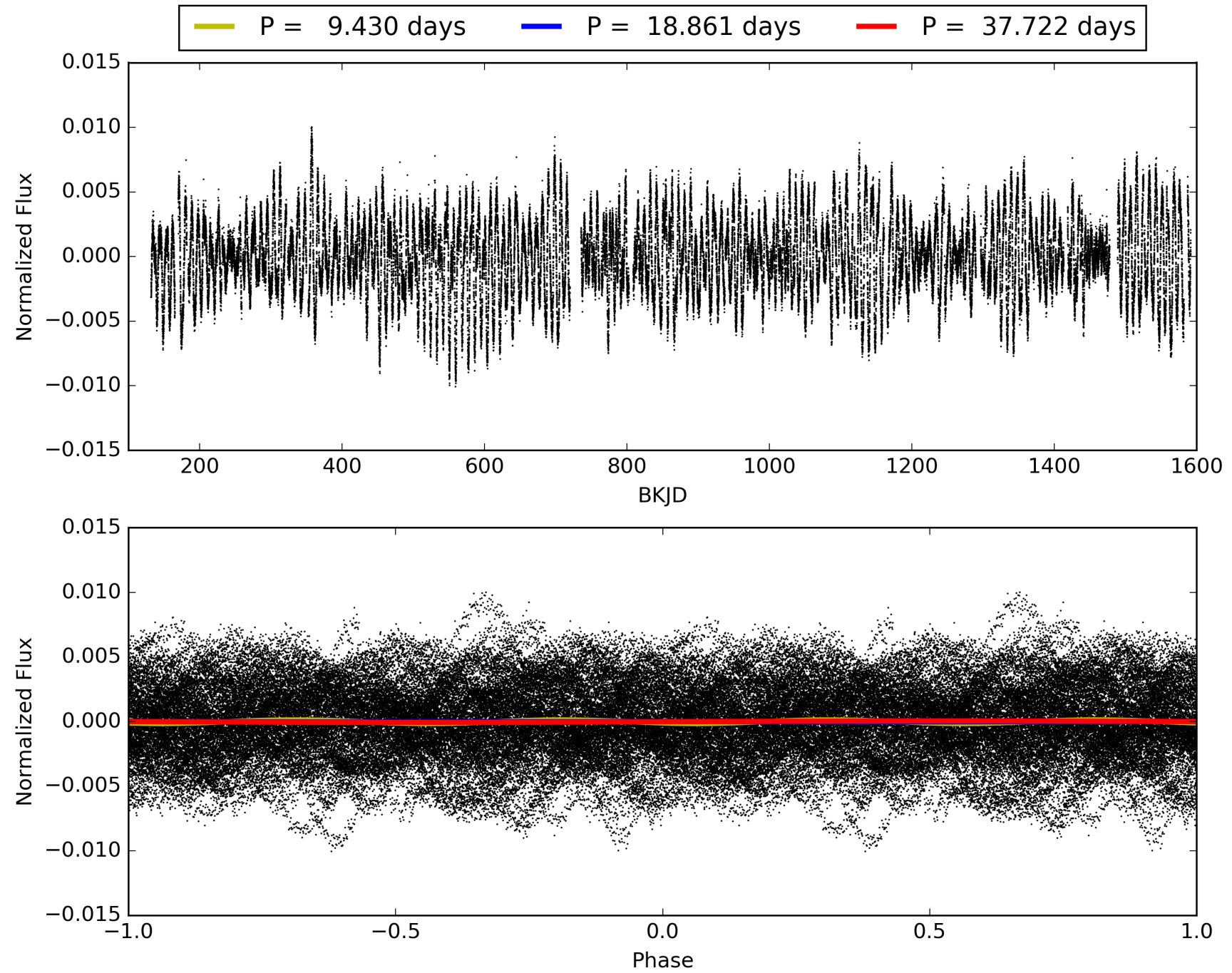
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 06:03:27 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 007976136-06, PDC Light Curves

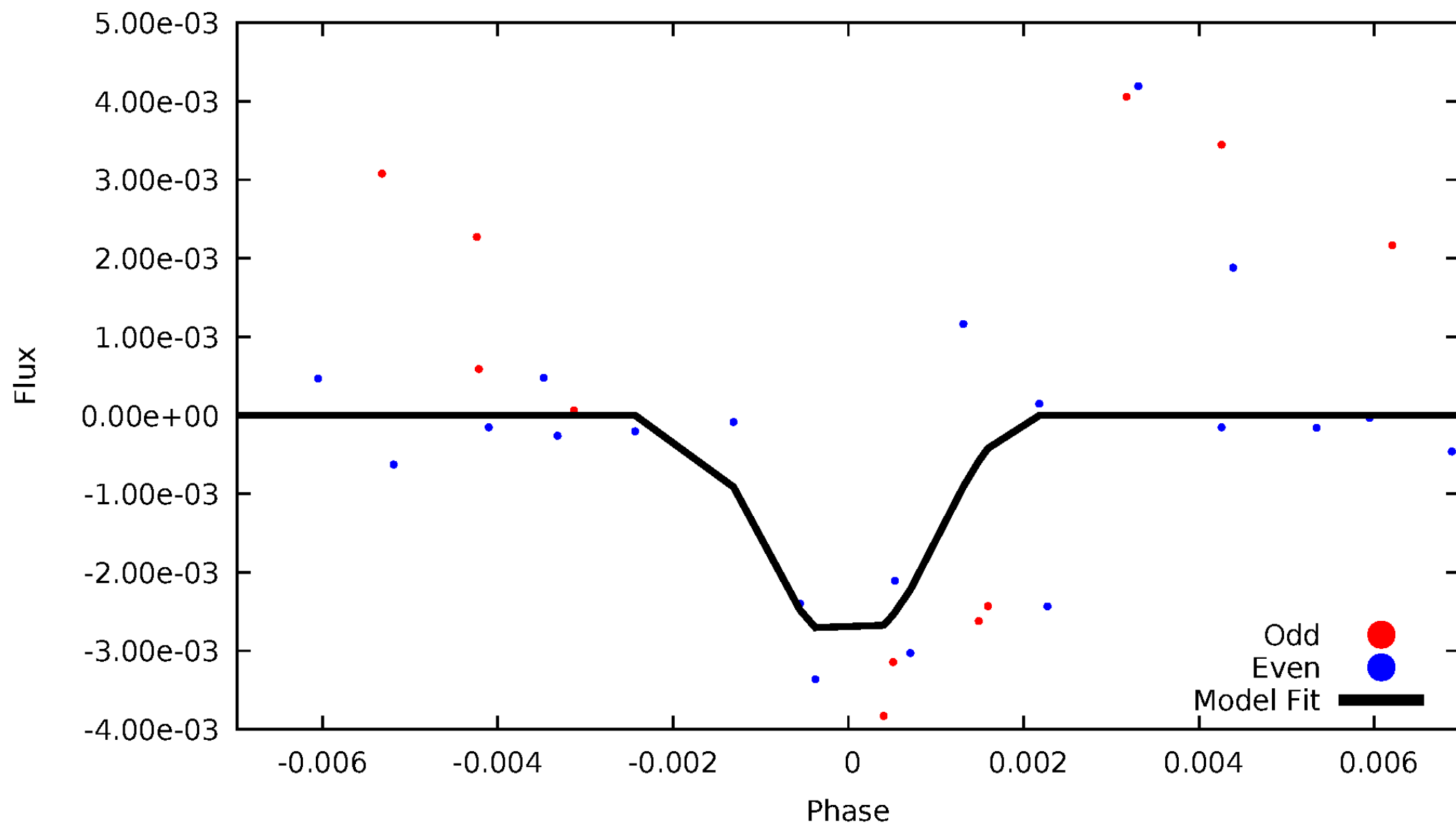


TCE 007976136-06



DV Odd/Even

TCE 007976136-06

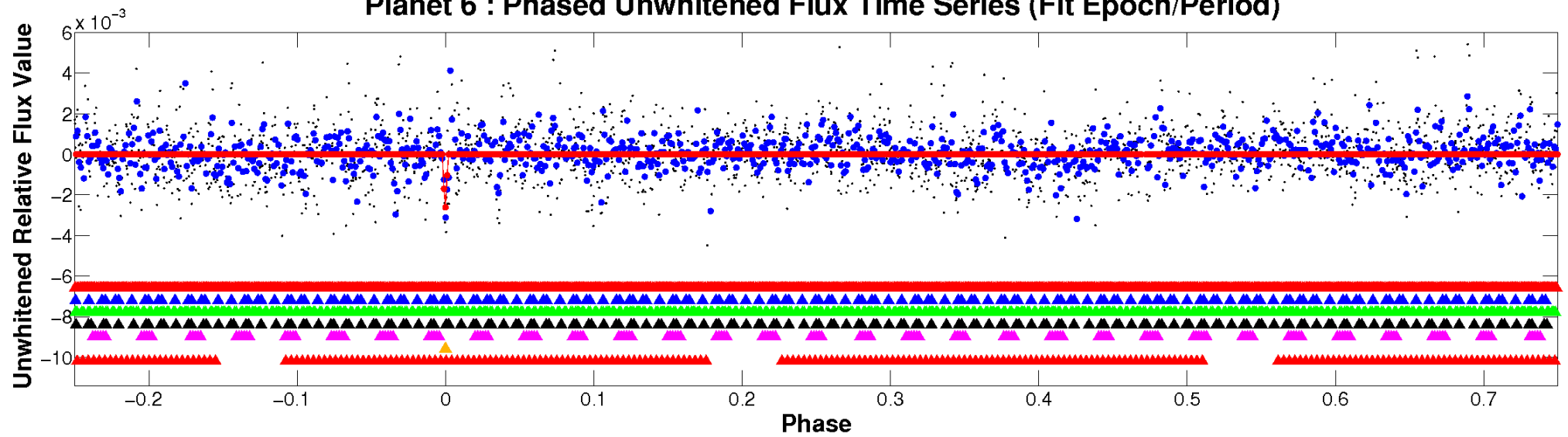


ALT Odd/Even

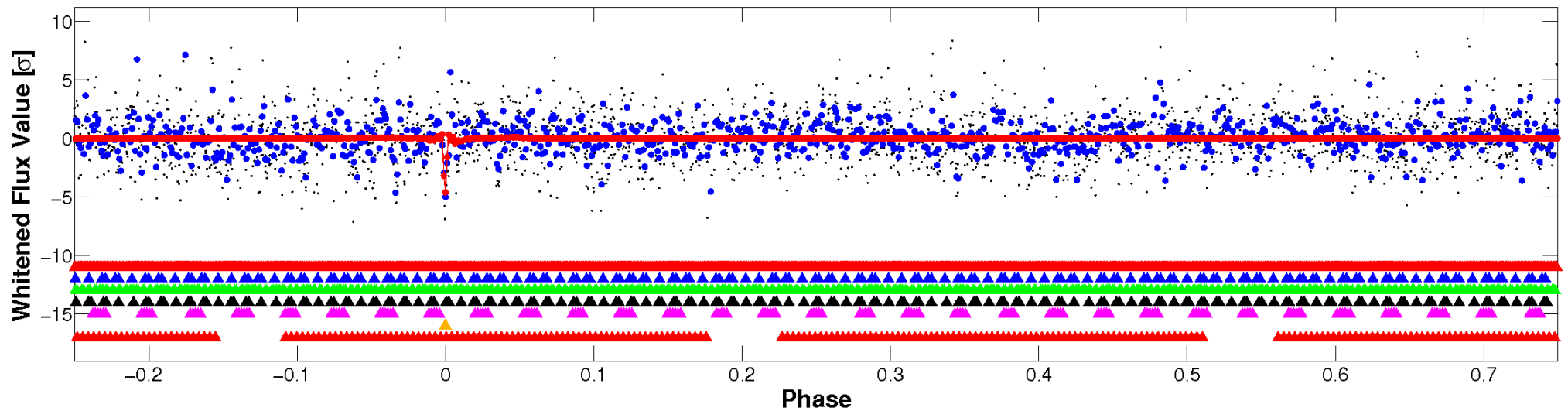
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

Planet 6 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

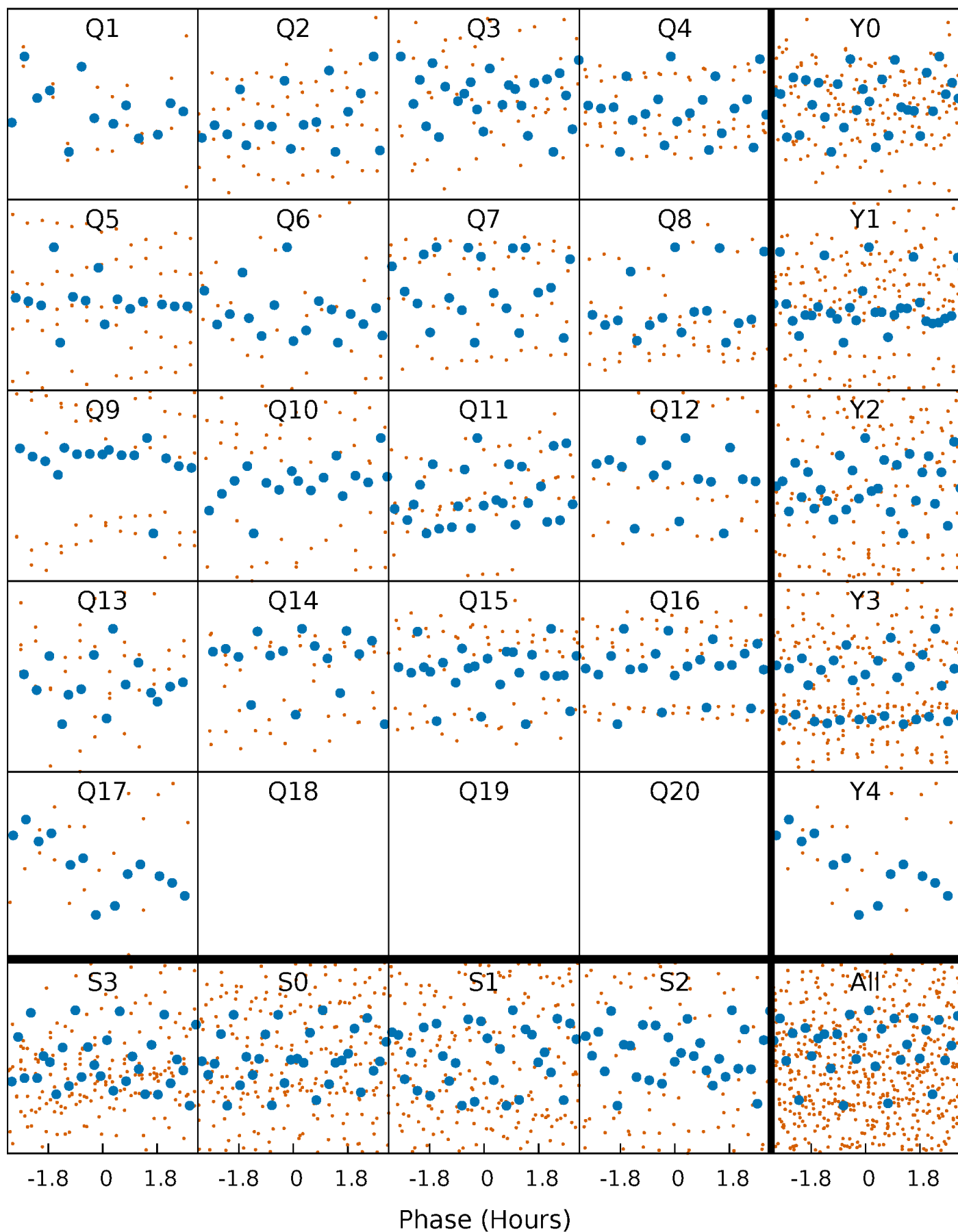


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



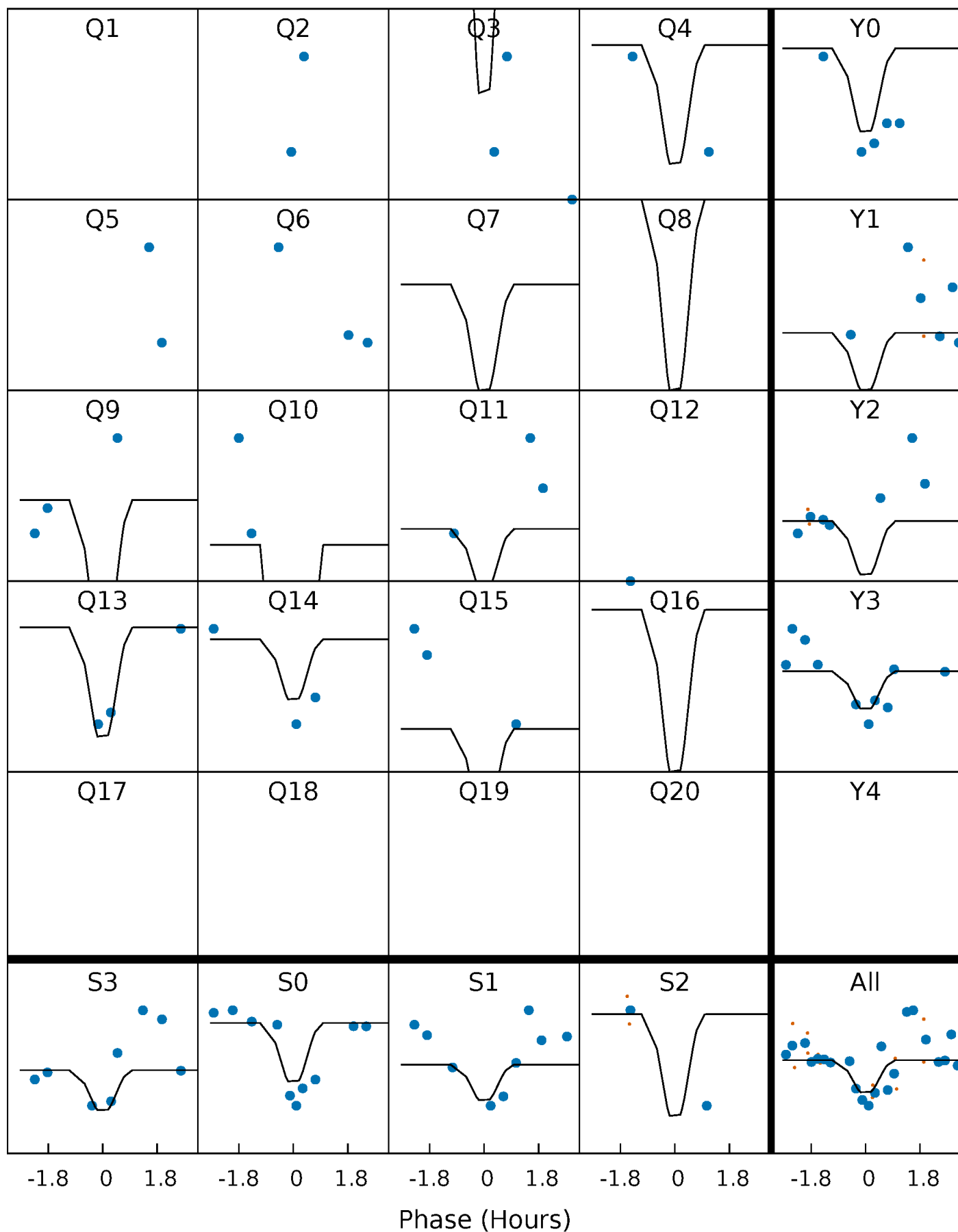
PDC Quarter-Phased Transit Curves

TCE 007976136-06 P= 18.860961 Days $T_0=136.995460$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 007976136-06 P= 18.860961 Days $T_0=136.995460$ (BKJD)

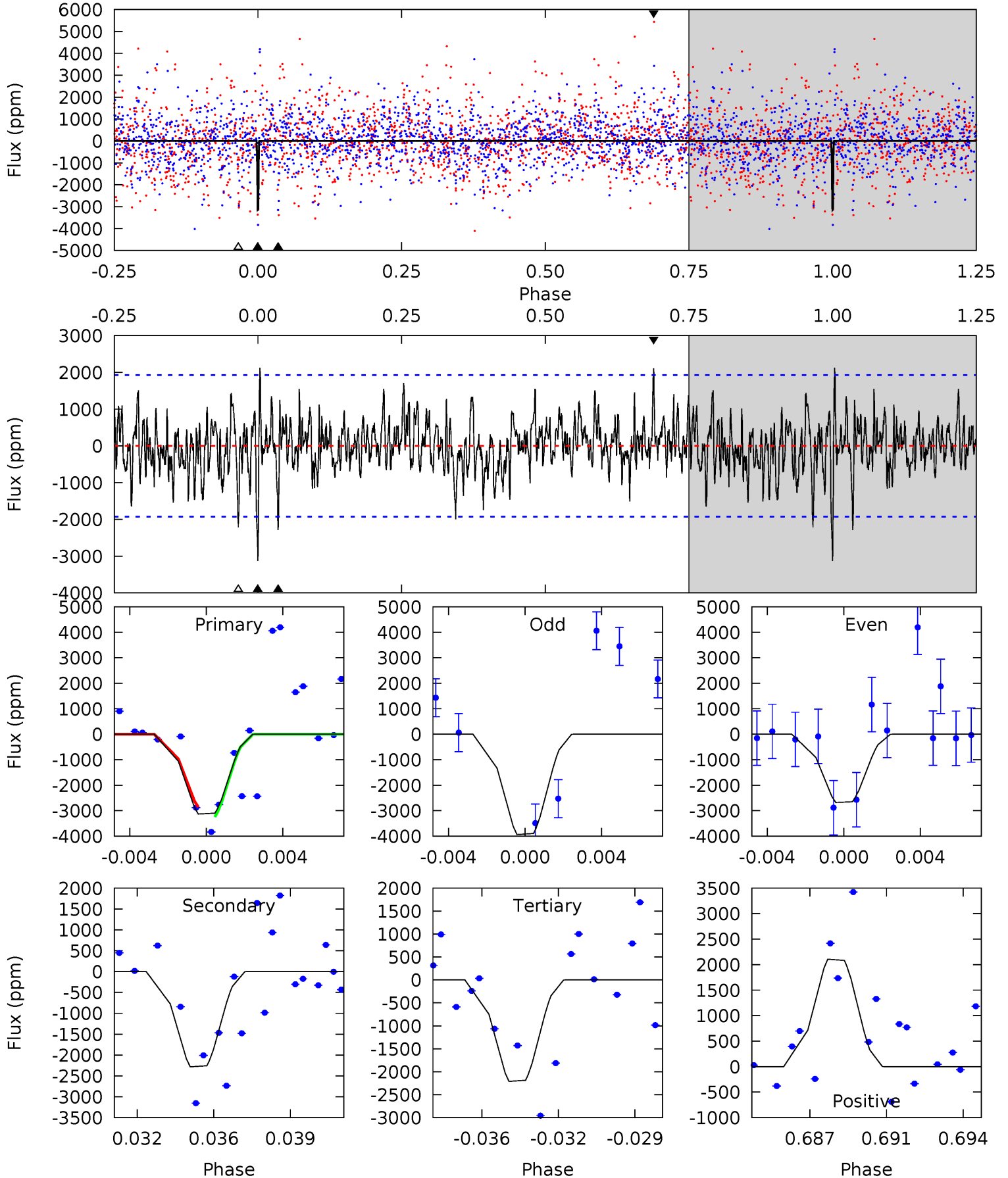


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

007976136-06, P = 18.860961 Days, E = 118.134499 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.49	6.19	5.99	5.71	5.22	2.91	1.59	2.50	2.78	0.19	0.48	1.65	0.97	0.40	0.42



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 007976136

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6063^{+169}_{-211}	$4.476^{+0.048}_{-0.192}$	$0.070^{+0.200}_{-0.350}$	$1.012^{+0.286}_{-0.114}$	$1.117^{+0.120}_{-0.174}$	$1.519^{+0.379}_{-0.737}$
	+3%/-3%	+1%/-4%	+286%/-500%	+28%/-11%	+11%/-16%	+25%/-49%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 007976136-06 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-2282 ± 369	$108.84^{+115.34}_{-71.97}$	1013^{+68}_{-48}	2249^{+777}_{-462}	$2.024^{+15.170}_{-1.534}$
Alt.	N/A	N/A	N/A	N/A	N/A

T_{max} = Theoretical Maximum Planetary Temperature
 T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
 A_{obs} = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

DV Centroid Data

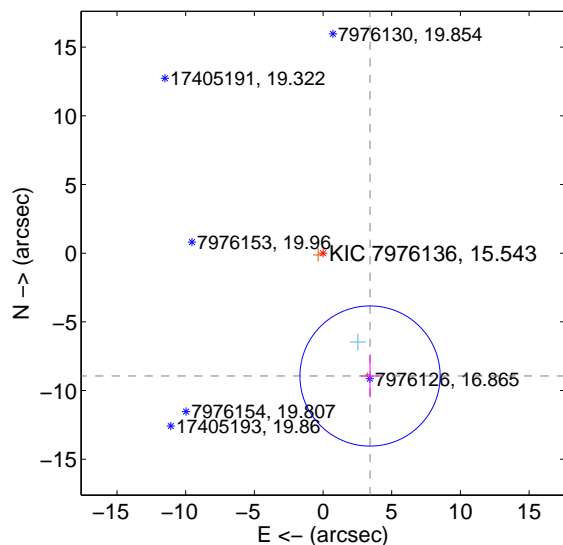
Supplemental centroid analysis for 007976136-06. Kepler magnitude: 15.54. Transit SNR 12.02

There are 2 quarters with good PRF difference image offsets

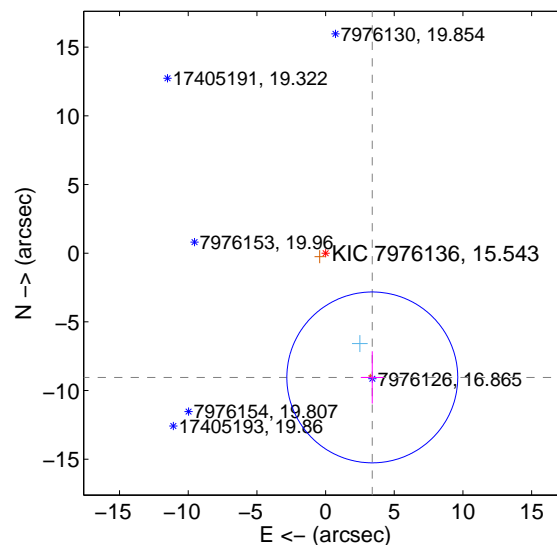
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	9.578 ± 1.701	5.63	-3.422 ± 0.690	-8.945 ± 1.560
PRF-fit source offset from KIC position	9.665 ± 2.074	4.66	-3.401 ± 0.837	-9.047 ± 1.903
photometric centroid source offset	0.63 ± 0.32	1.95	-0.23 ± 0.23	-0.58 ± 0.33

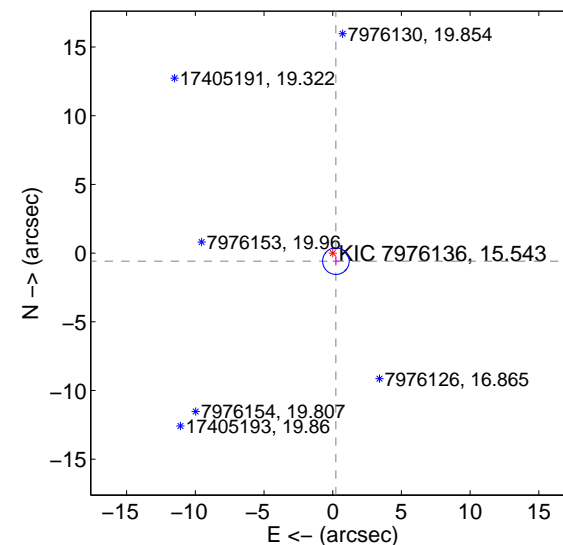
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

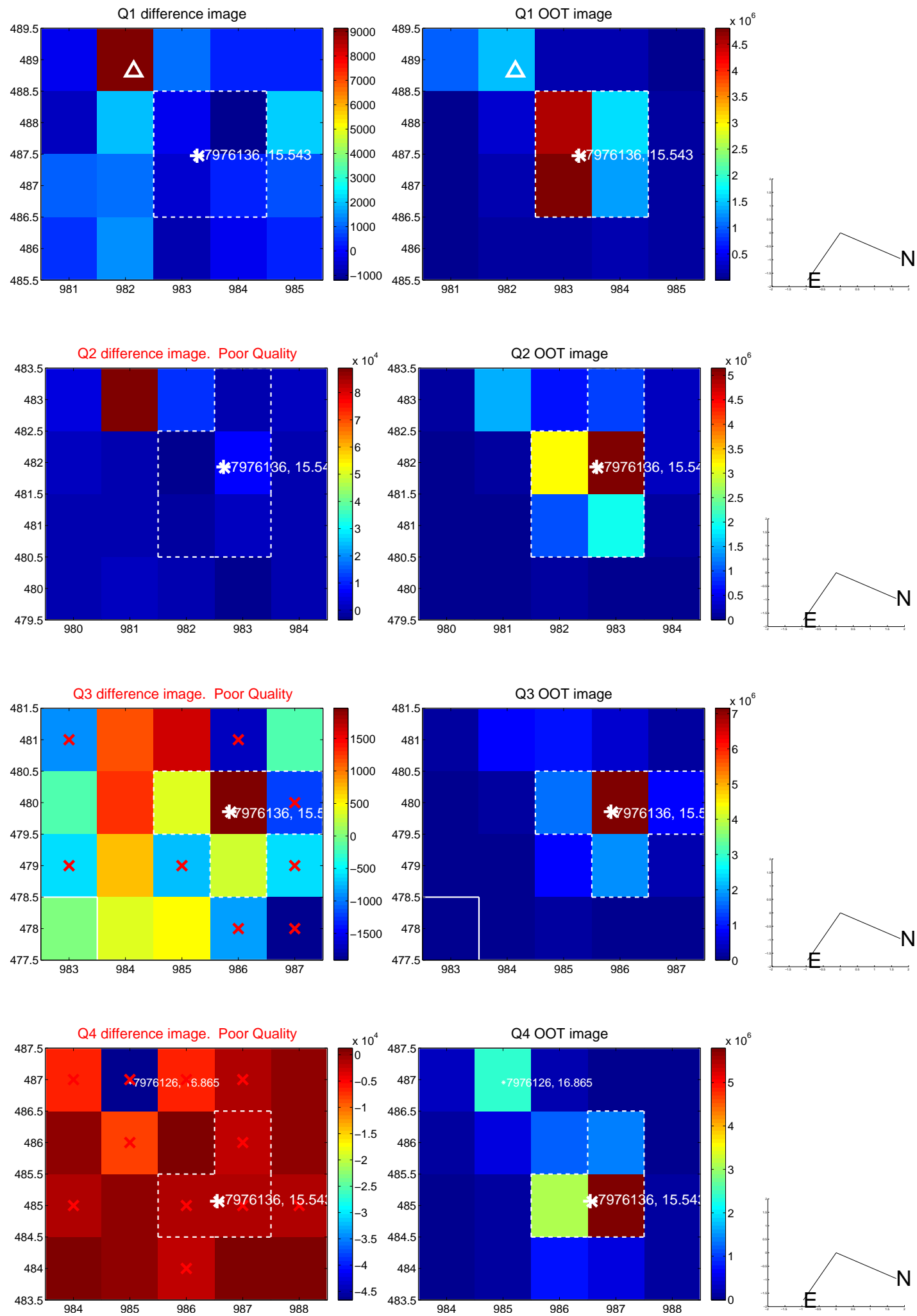


offset from photometric centroids

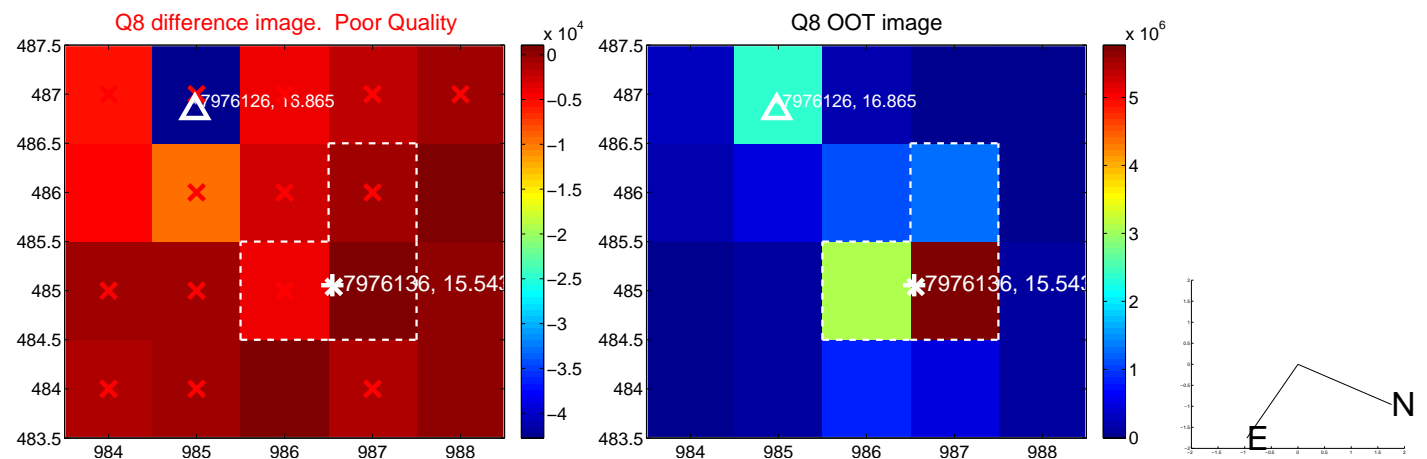
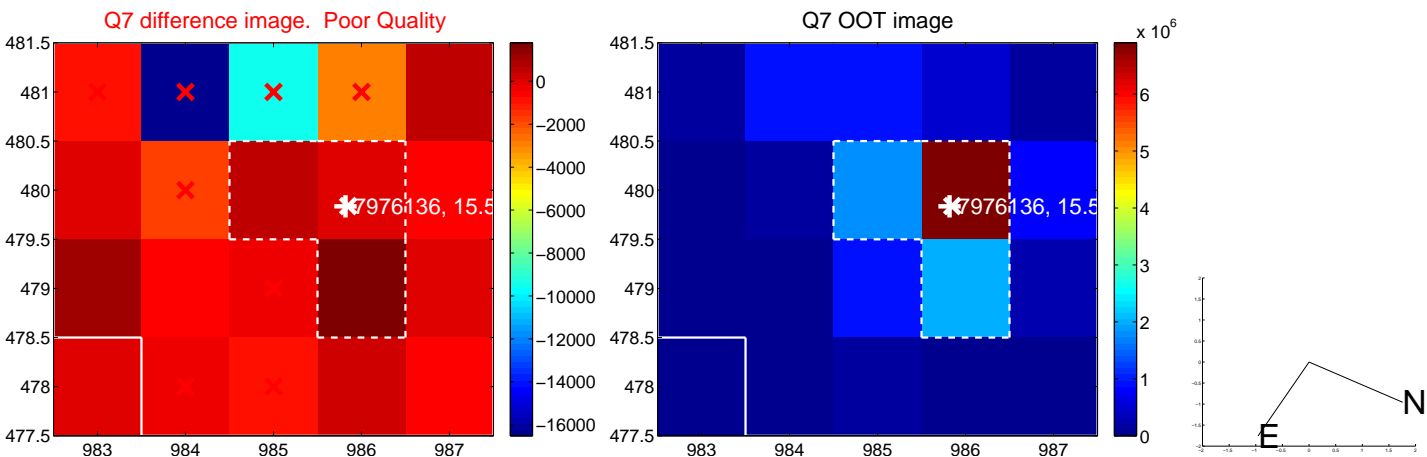
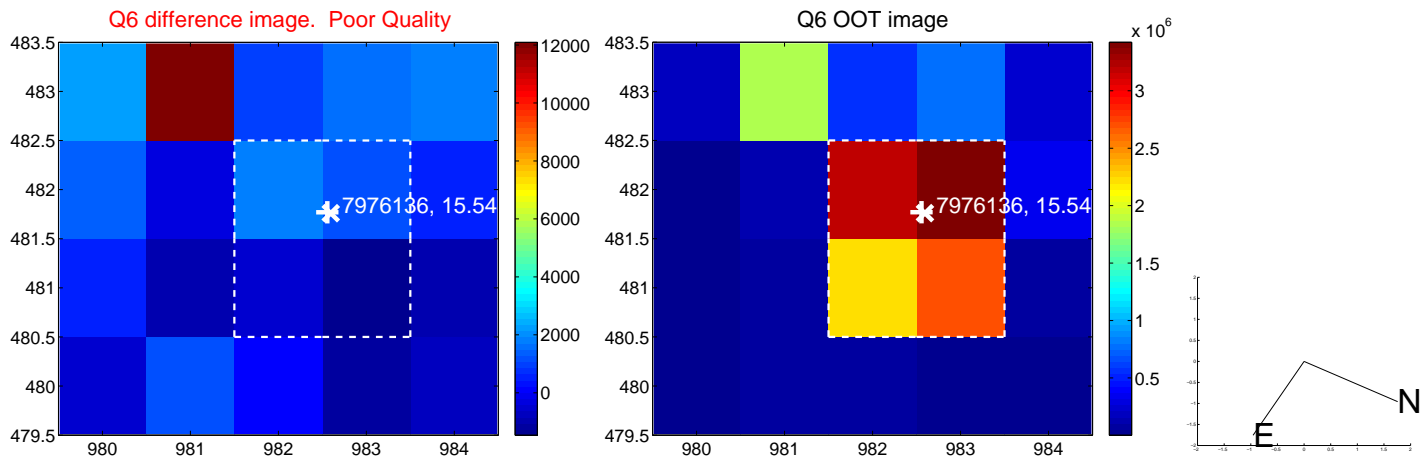
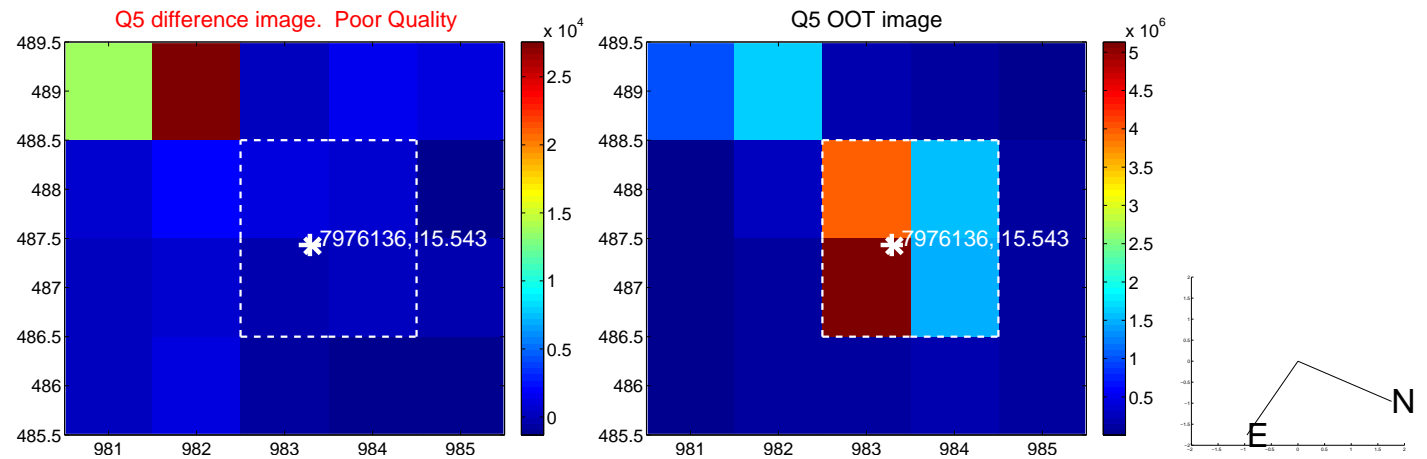


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

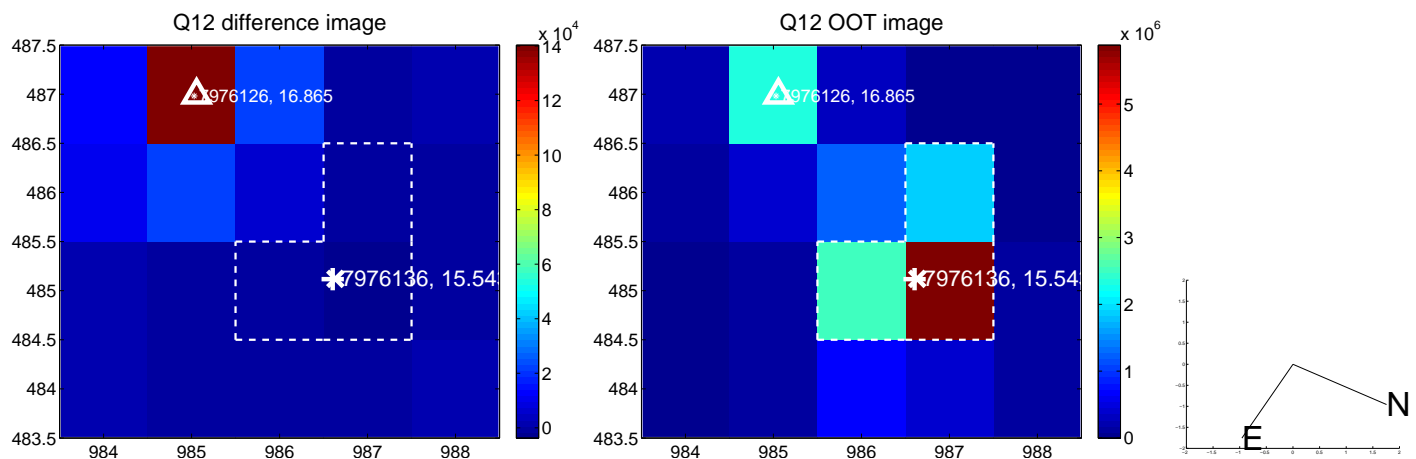
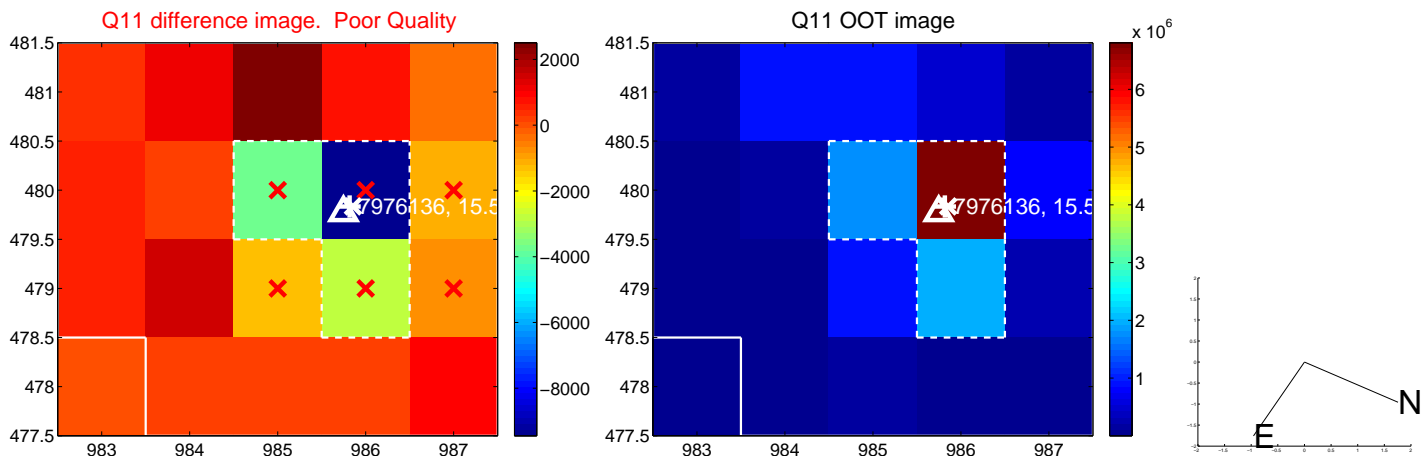
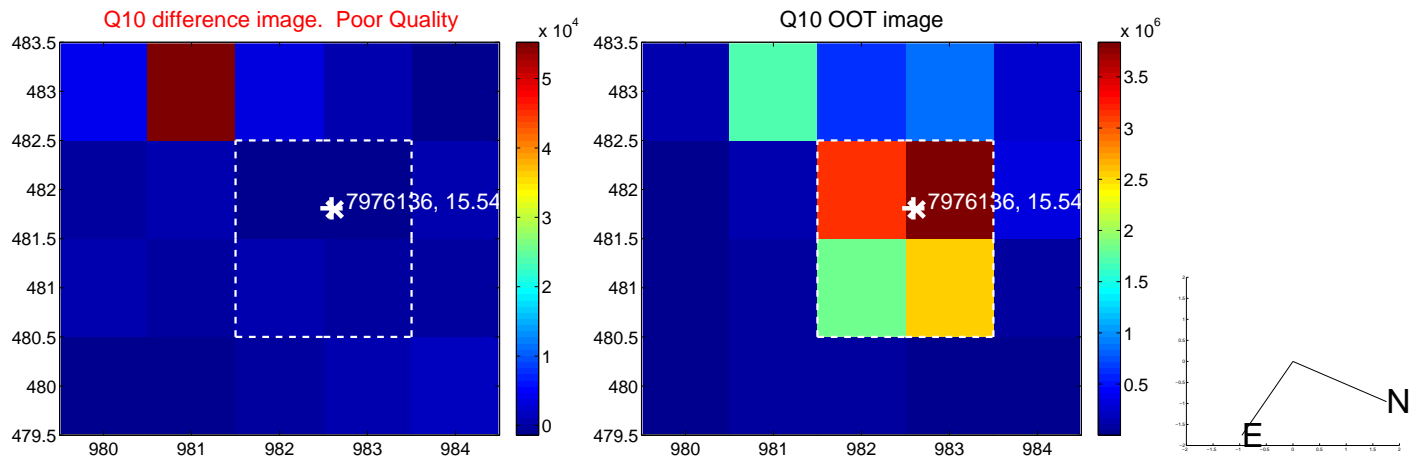
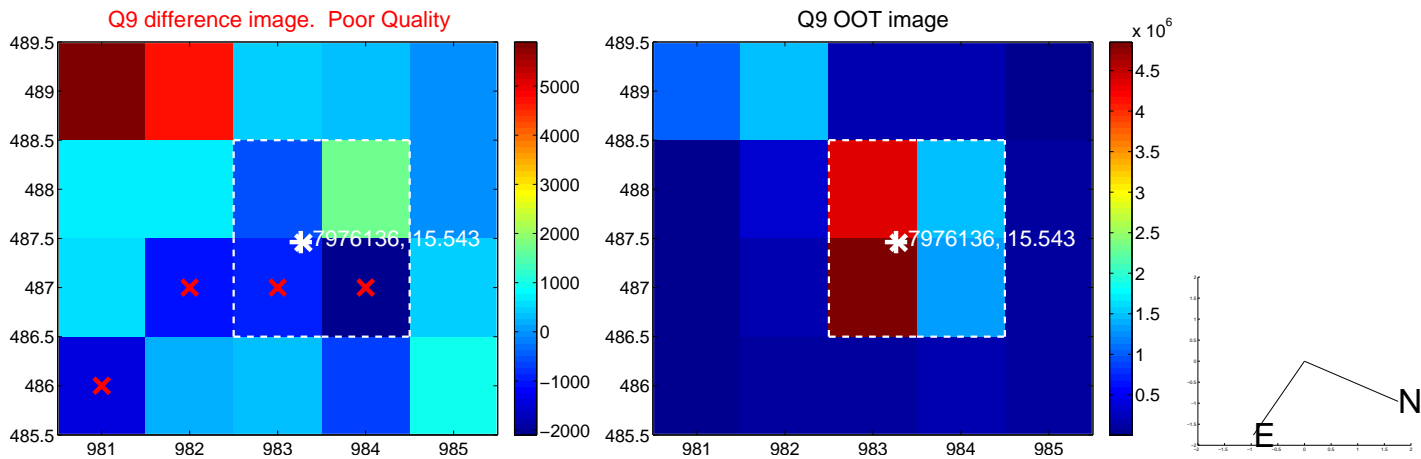
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



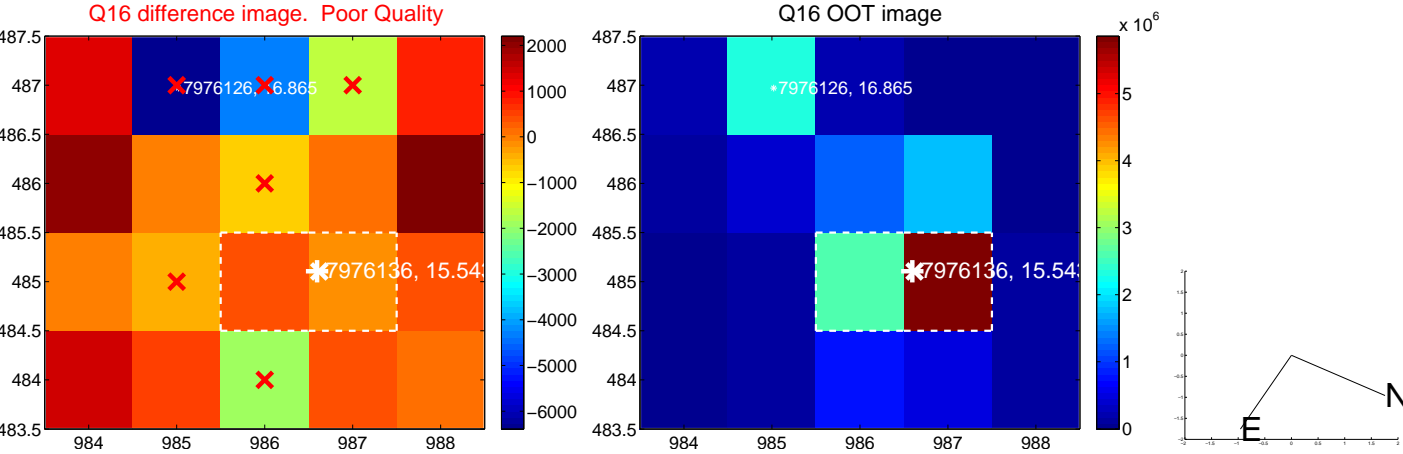
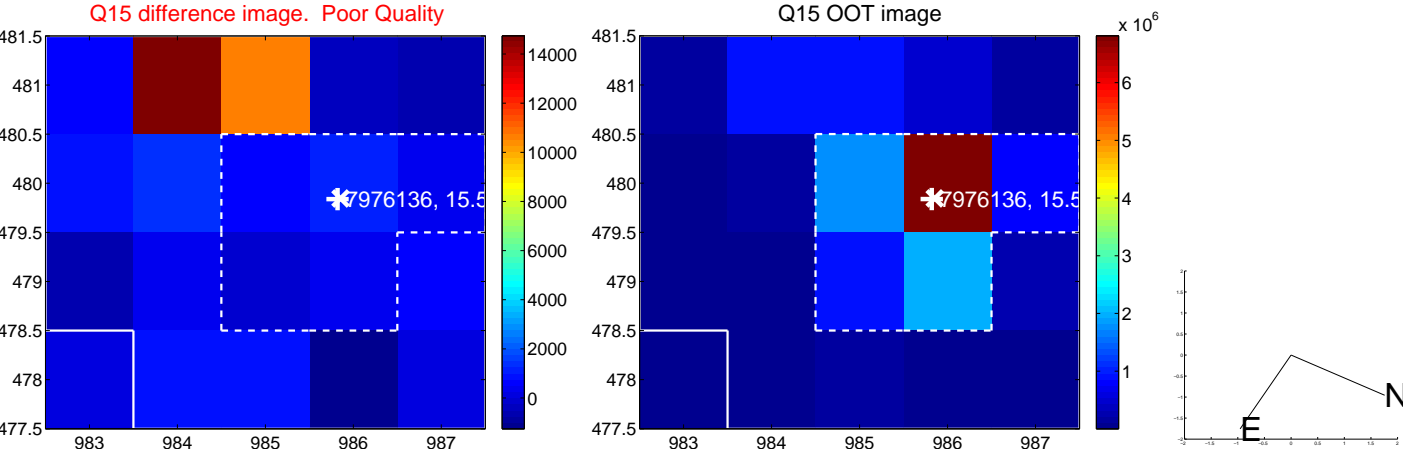
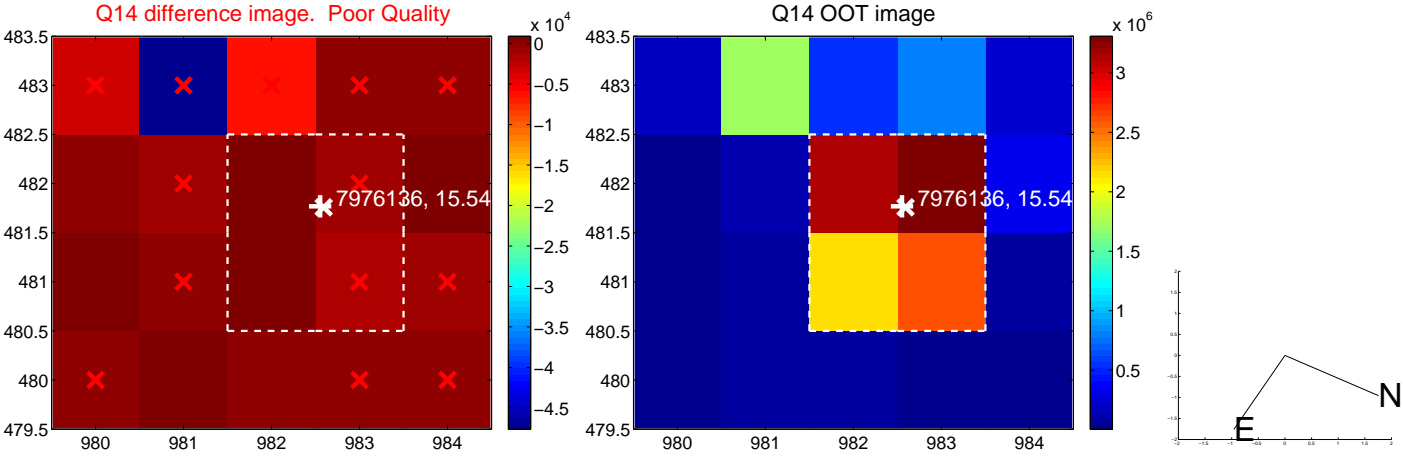
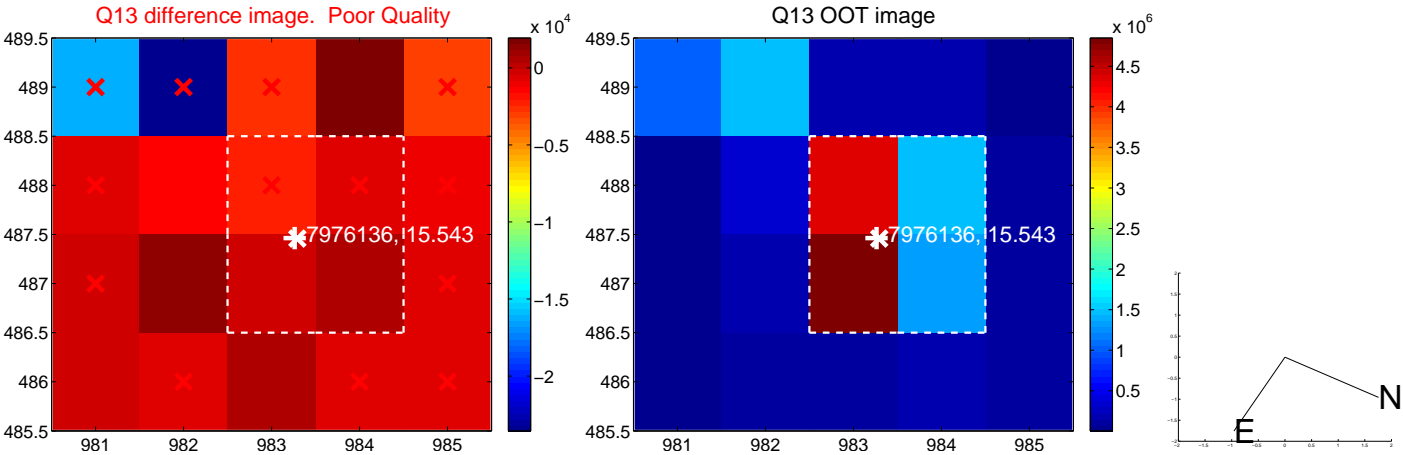
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



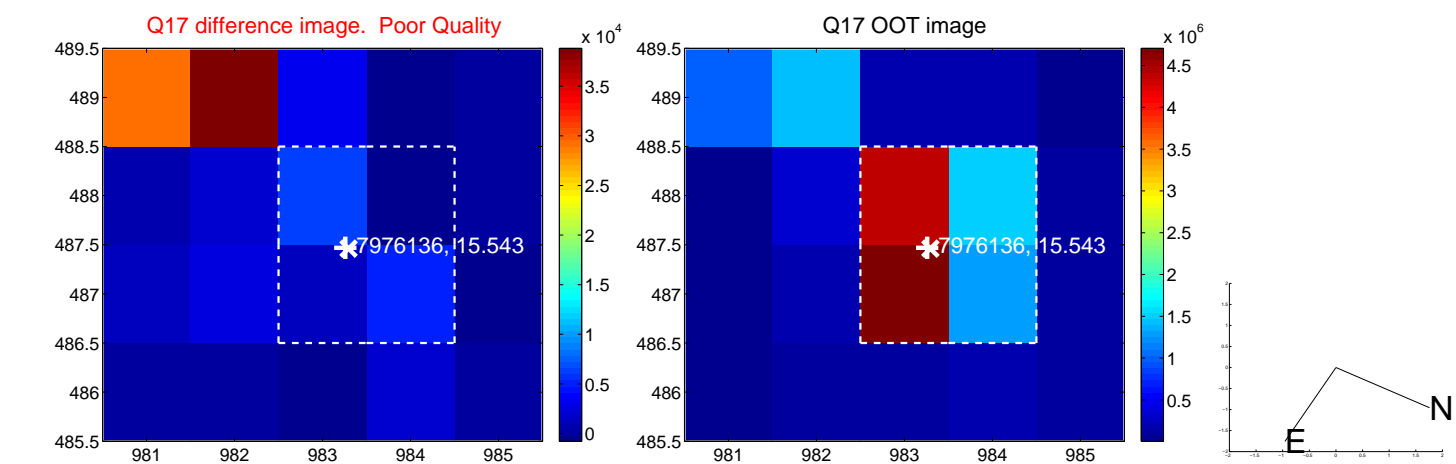
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



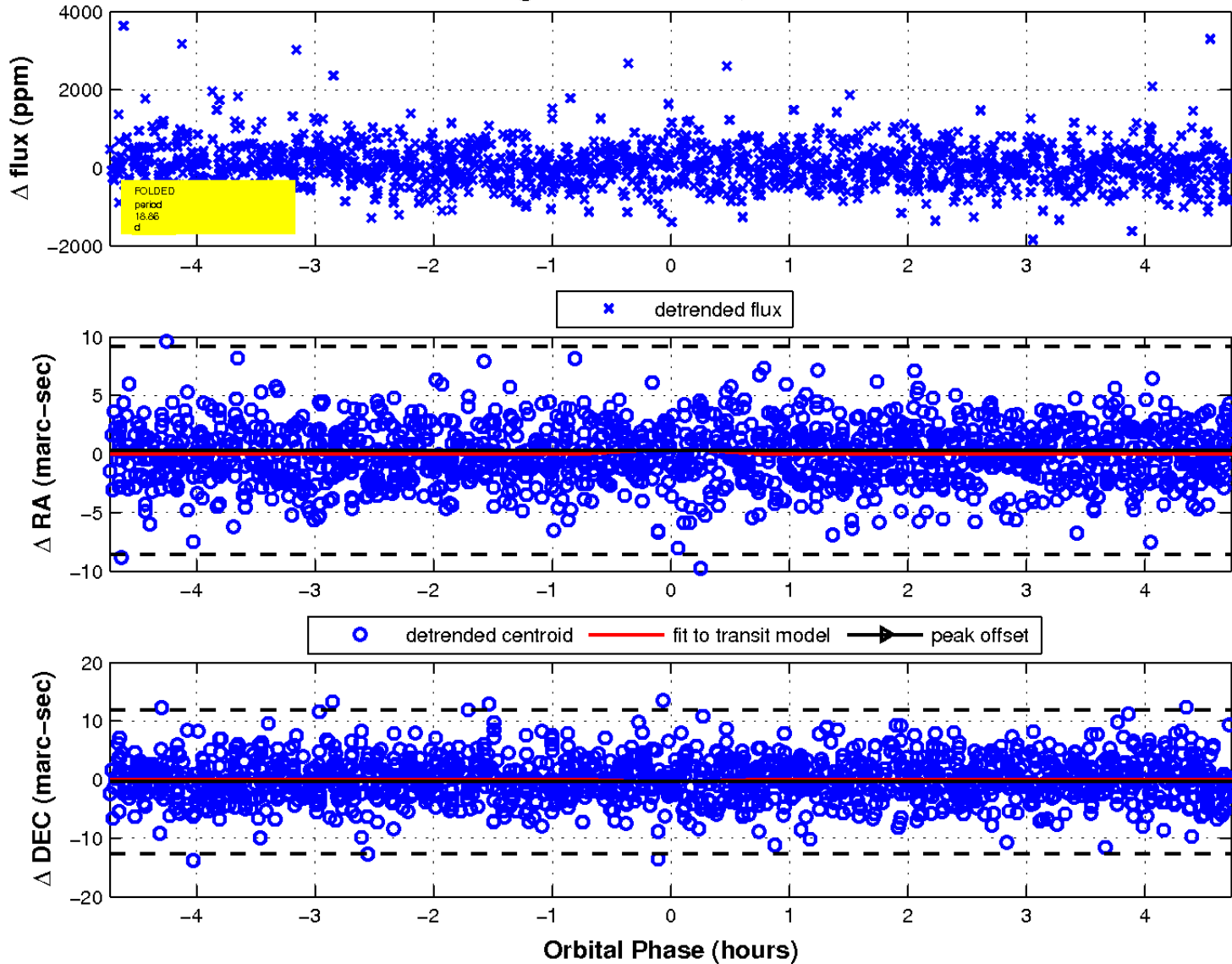
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

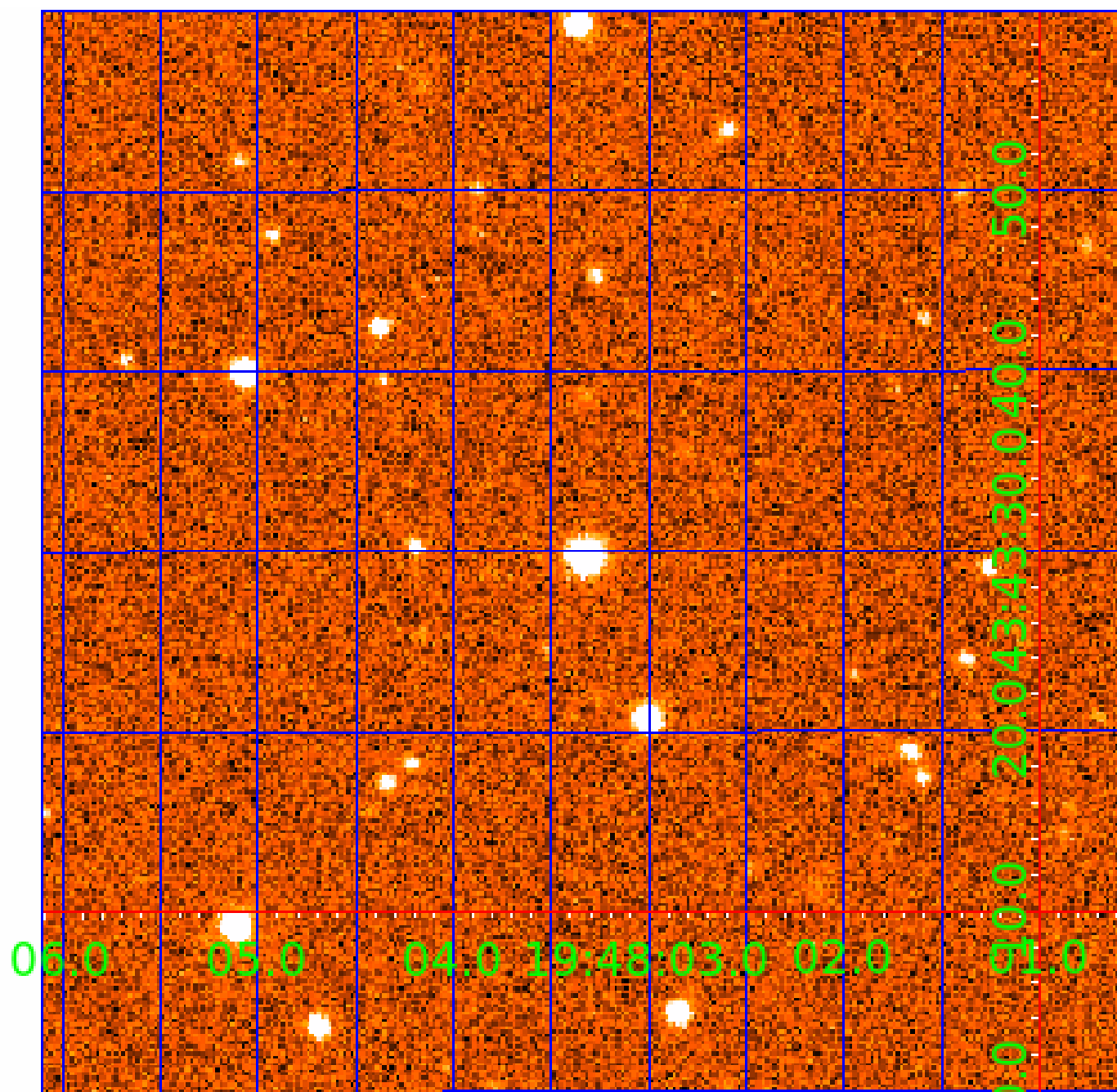


fluxWeightedCentroids, Planet 6 of 7



UKIRT Image

Declination



KIC 007976136

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
007976136-01	OBS	6945.01	0.655049	131.814383	59.3	4.828	11.4	11.4	1.01	6063	0.85	5281.21
007976136-02	OBS	No	8.523290	139.211373	2333.8	2.215	14.4	12.7	1.01	6063	8.64	172.57
007976136-03	OBS	No	2.638898	131.941117	357.0	1.273	13.5	4.4	1.01	6063	2.09	823.89
007976136-04	OBS	No	8.524035	139.705953	552.2	1.544	11.8	3.3	1.01	6063	2.62	172.55
007976136-05	OBS	No	8.516783	139.984758	1079.9	1.725	11.5	9.4	1.01	6063	3.61	172.74
007976136-06	OBS	No	18.860961	136.995460	2903.2	1.578	11.8	12.0	1.01	6063	8.65	59.84
007976136-07	OBS	No	6.310436	134.964120	1042.8	2.500	8.2	-1.0	1.01	6063	3.26	257.64

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007976136-01	OBS	FP	0.00	0	1	1	0	MOD_SEC_ALT—CENT_RESOLVED_OFFSET
007976136-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_RESOLVED_OFFSET
007976136-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—CENT_RESOLVED_OFFSET
007976136-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_RESOLVED_OFFSET
007976136-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_TER_ALT—MOD_POS_ALT—CENT_RESOLVED_OFFSET
007976136-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—CENT_RESOLVED_OFFSET
007976136-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

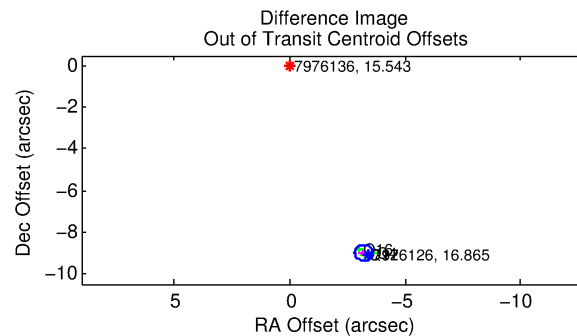
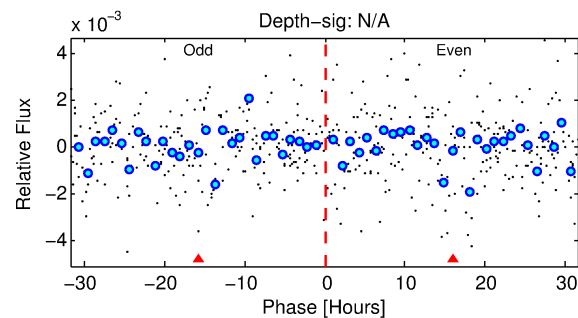
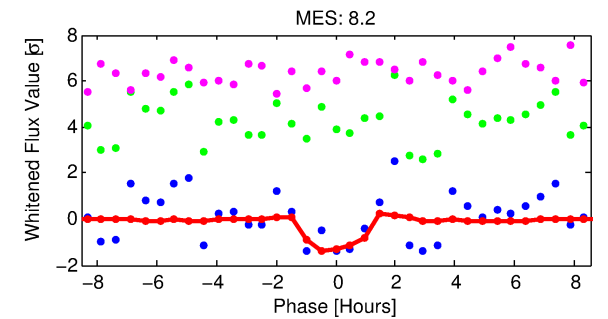
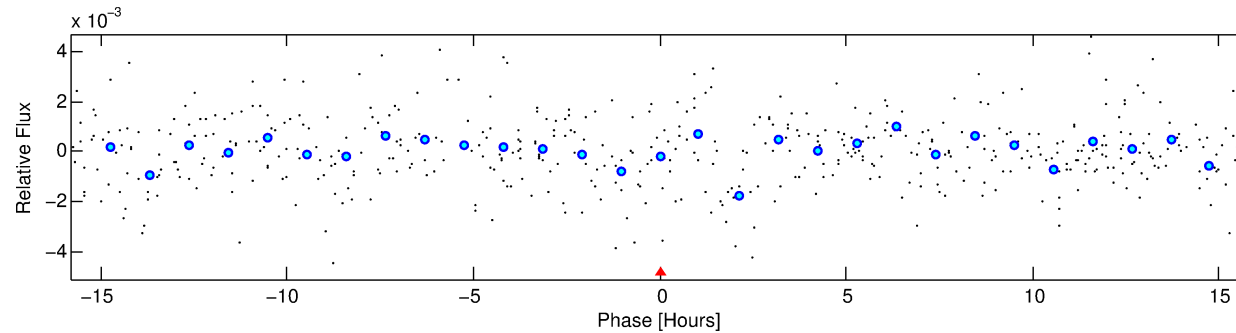
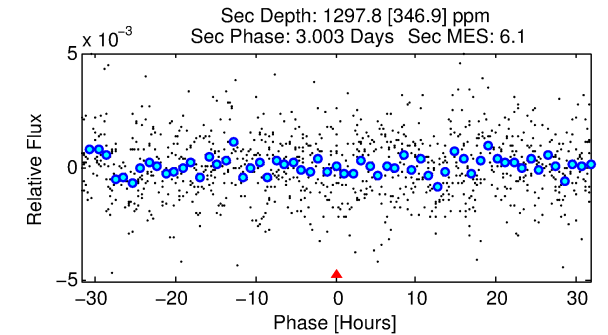
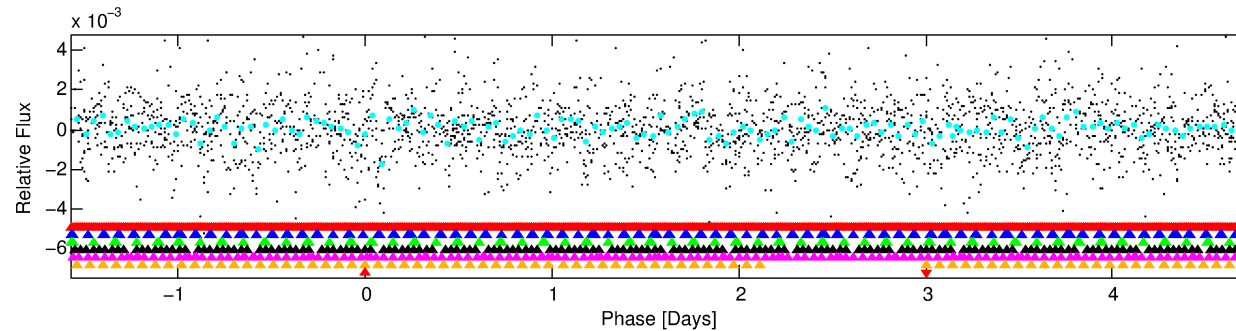
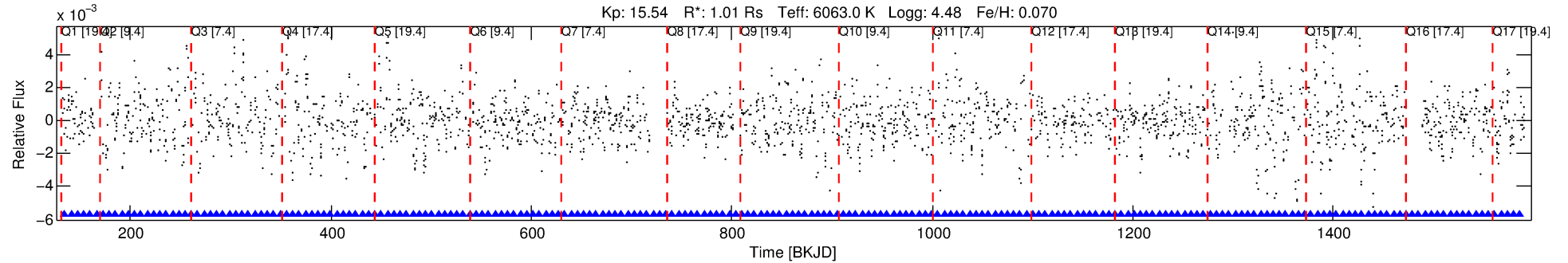
Ephemeris Match Information For 007976136-07

No Significant Match Found

DV One-Page Summary

KIC: 7976136 Candidate: 7 of 7 Period: 6.310 d
KOI: K06945 Corr: No Ephemeris Match

Kp: 15.54 R*: 1.01 Rs Teff: 6063.0 K Logg: 4.48 Fe/H: 0.070



TPS TCE Results:

Period = 6.31044 d
Epoch = 134.9641 BKJD

DV fit results are unavailable

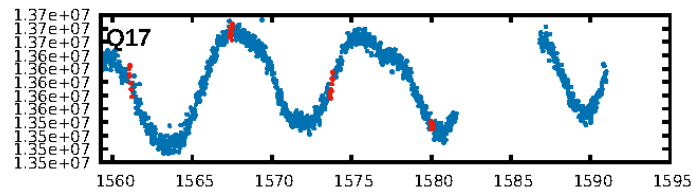
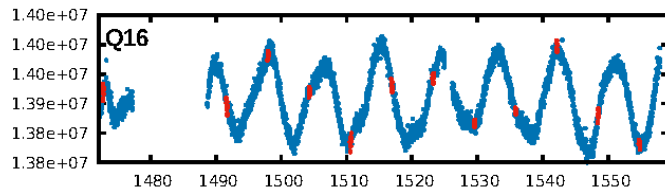
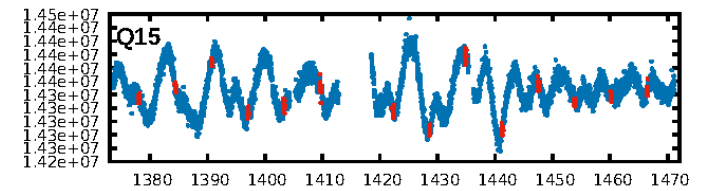
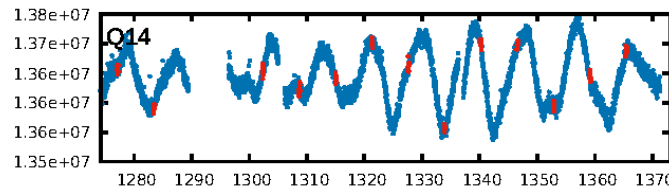
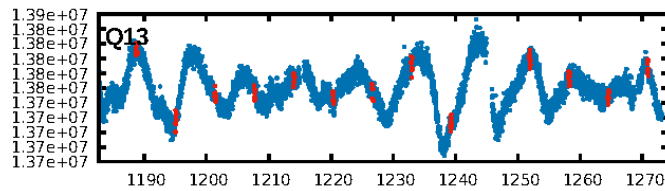
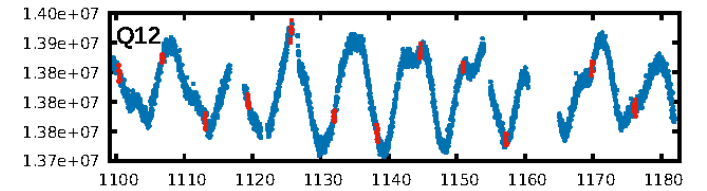
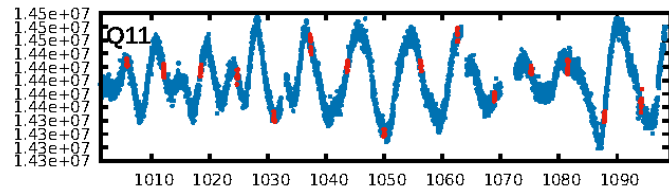
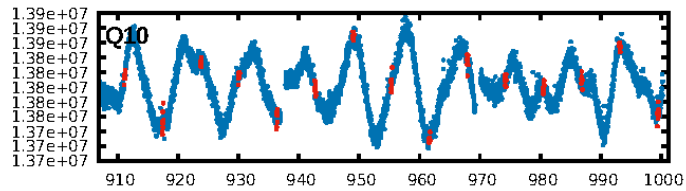
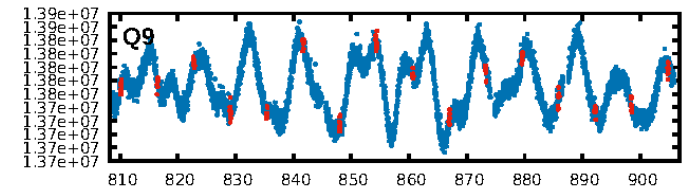
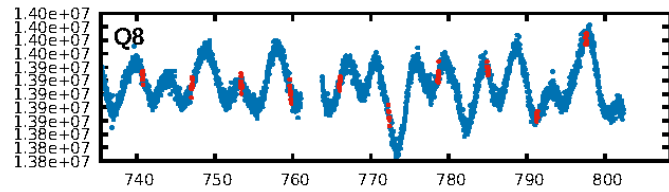
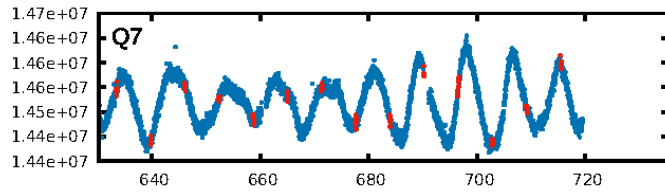
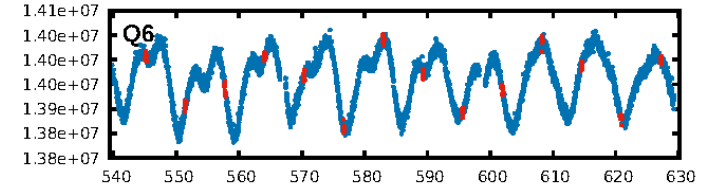
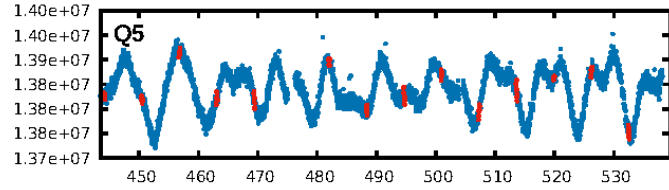
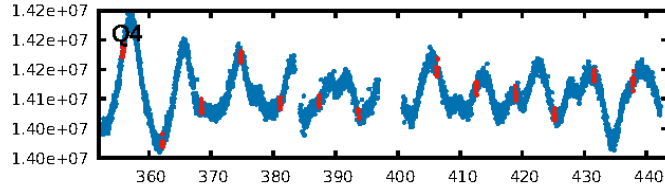
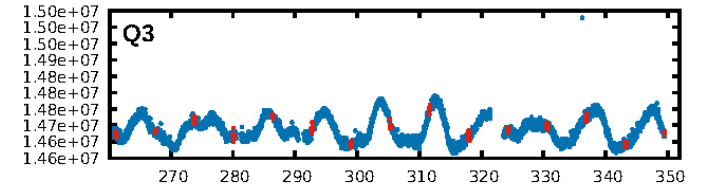
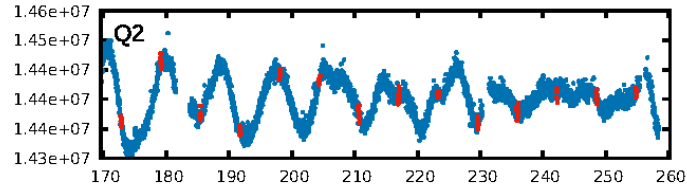
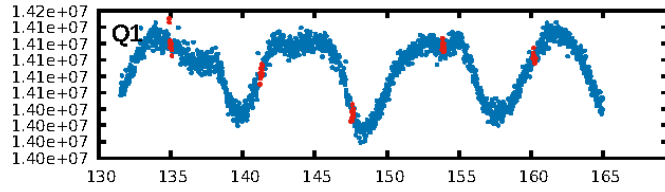
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [31.41σ]
LongPeriod-sig: 100.0% [17.43σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGoF-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [66/66]
GhostDiagnostic-chr: 2.596
Centroid-sig: 89.5%
Centroid-so: 0.878 arcsec [1.28σ]
OotOffset-rm: 9.551 arcsec [74.33σ]
KicOffset-rm: 9.628 arcsec [71.67σ]
OotOffset-st: 0/0/3/0 [3]
KicOffset-st: 0/0/3/0 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 0.00 [0/17]

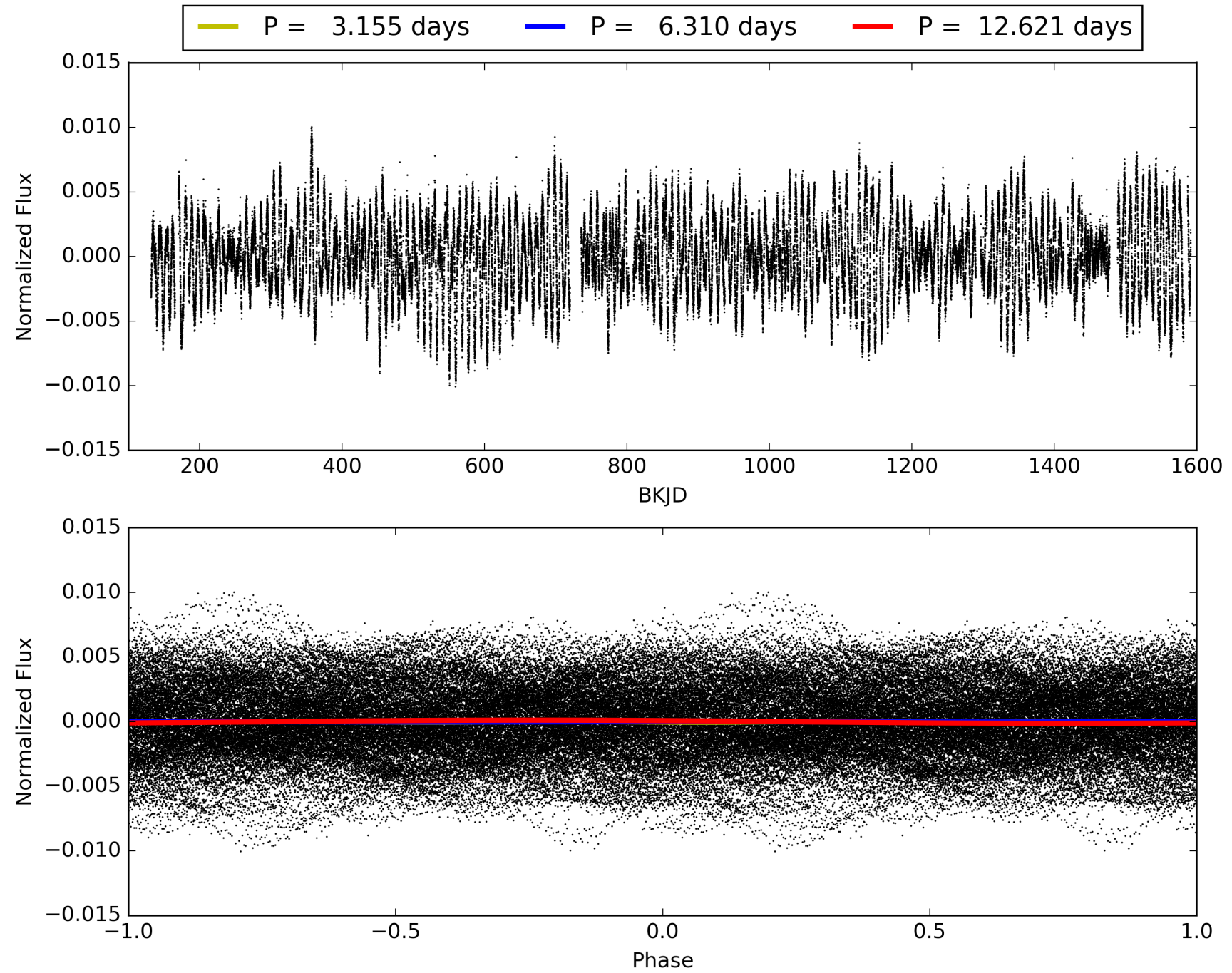
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 06:03:30 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 007976136-07, PDC Light Curves

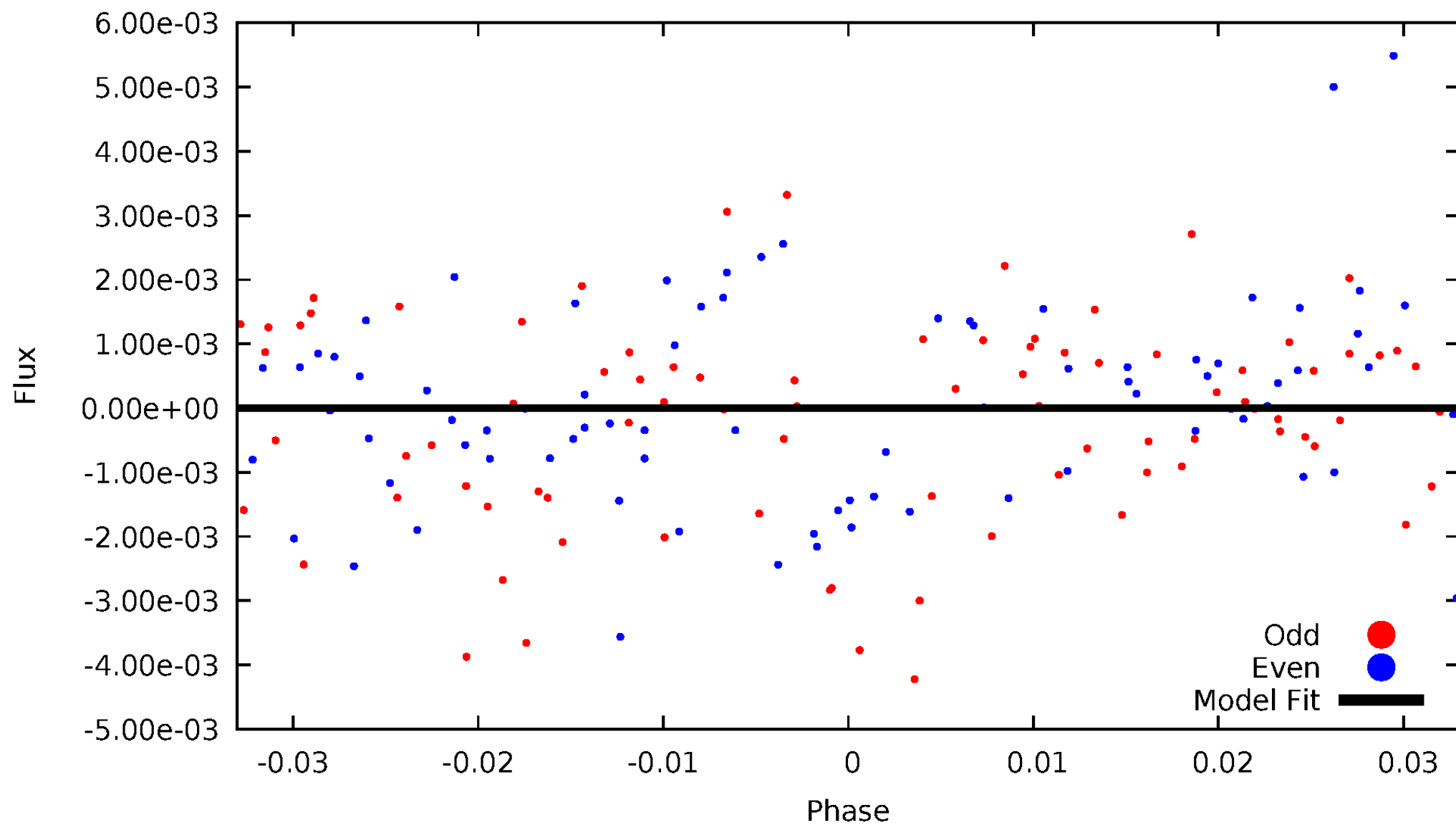


TCE 007976136-07



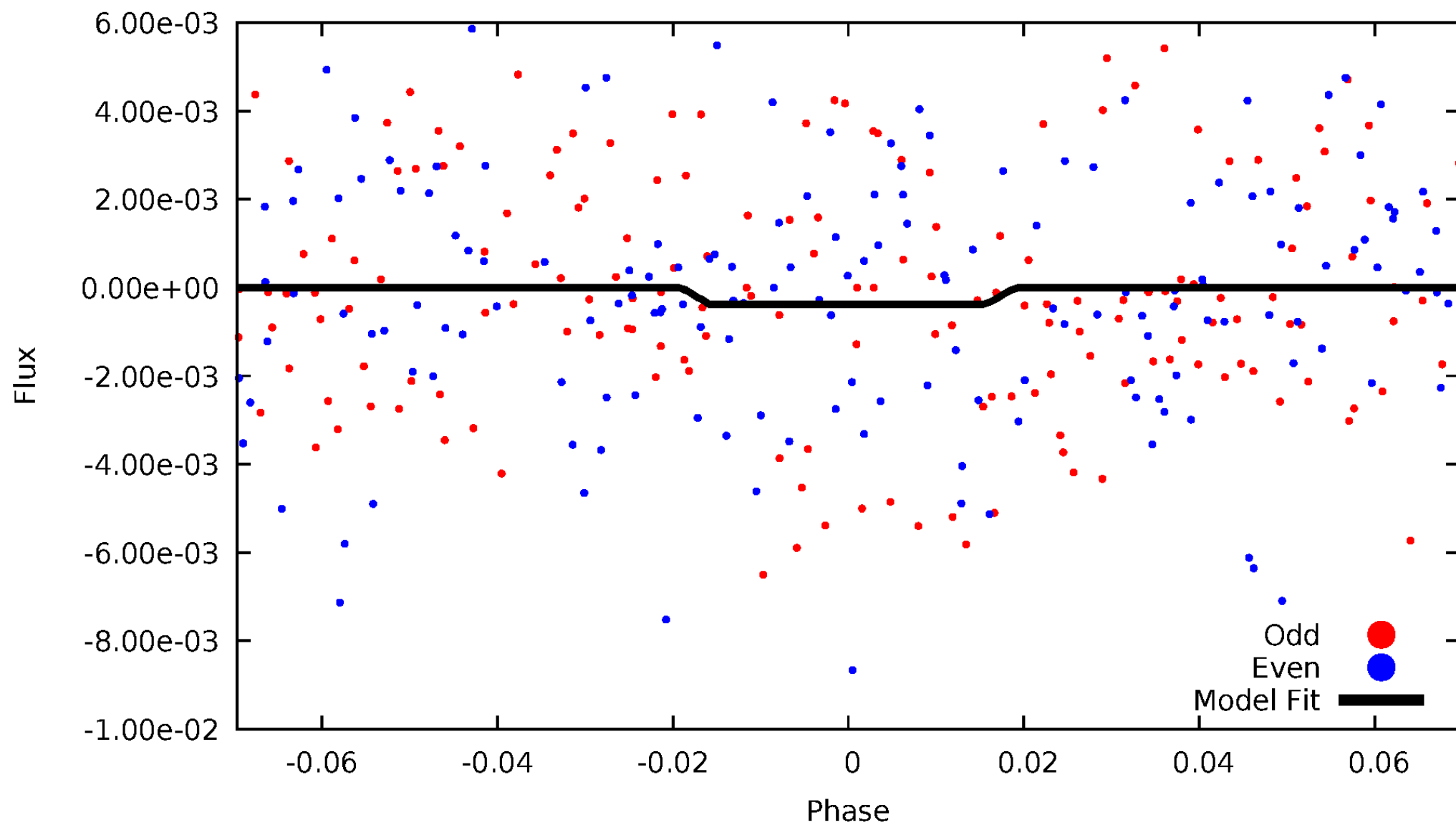
DV Odd/Even

TCE 007976136-07

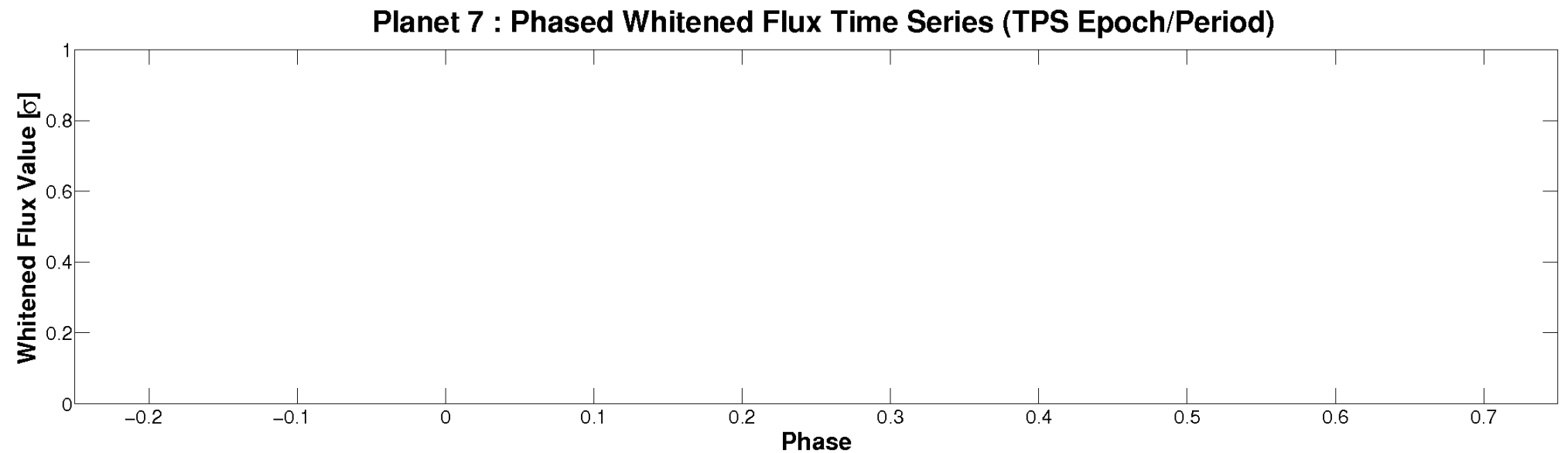
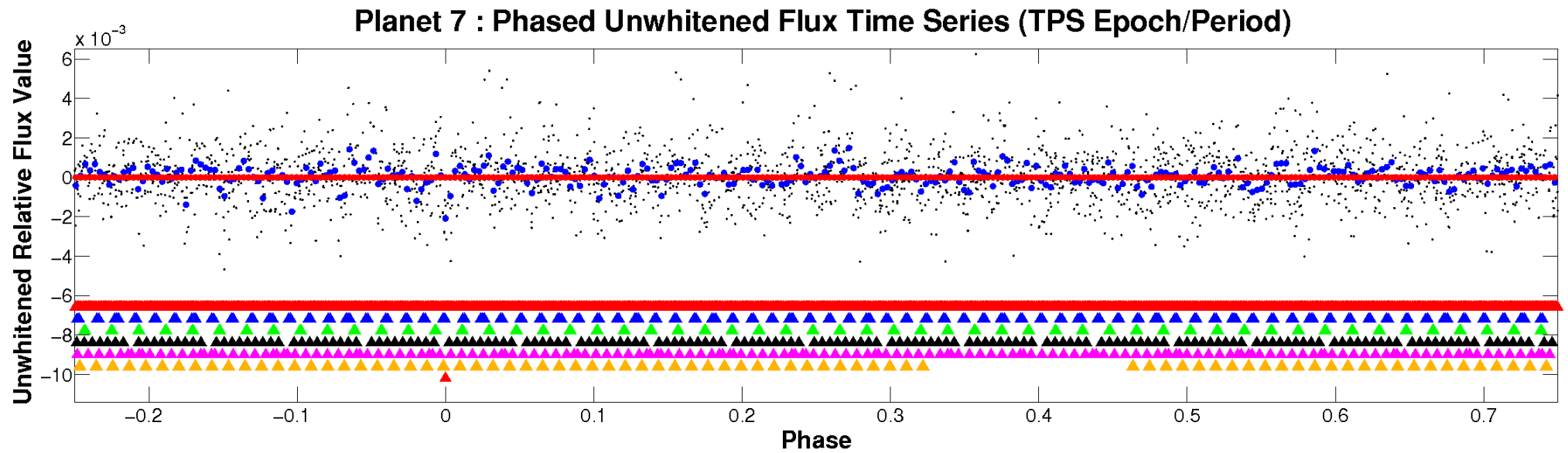


ALT Odd/Even

TCE 007976136-07

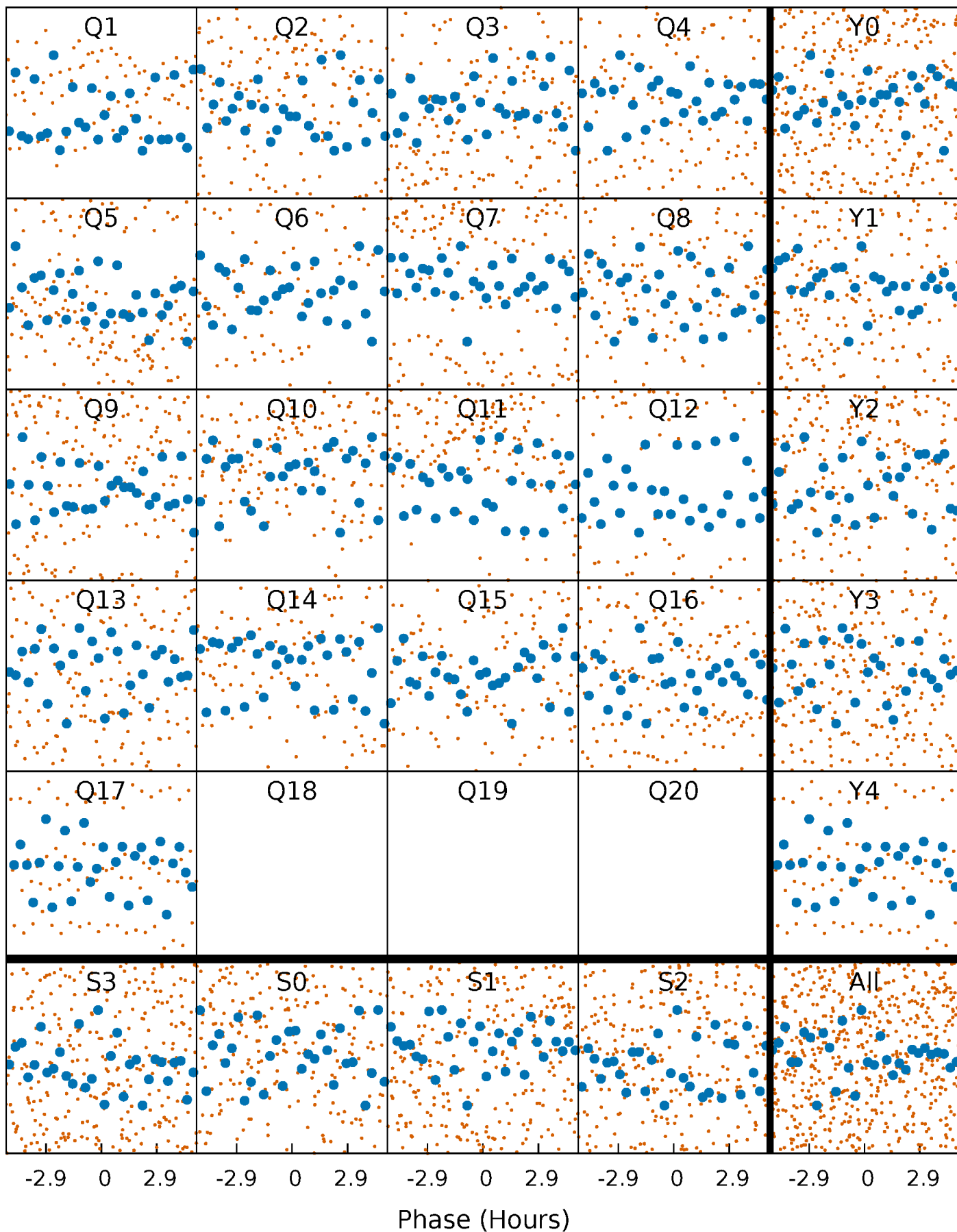


Non-Whitened Vs. Whitened Light Curve



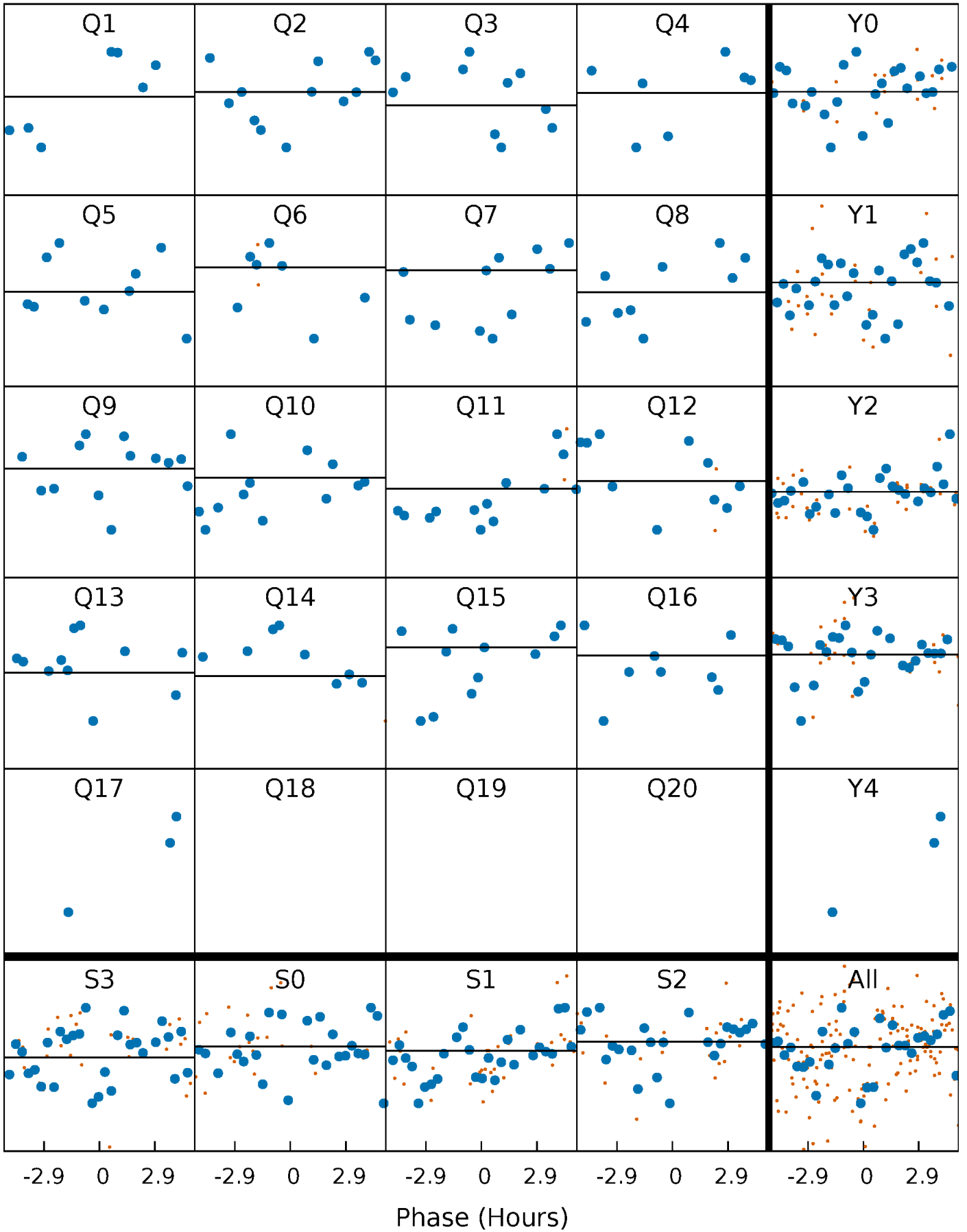
PDC Quarter-Phased Transit Curves

TCE 007976136-07 P= 6.310436 Days $T_0=134.964120$ (BKJD)



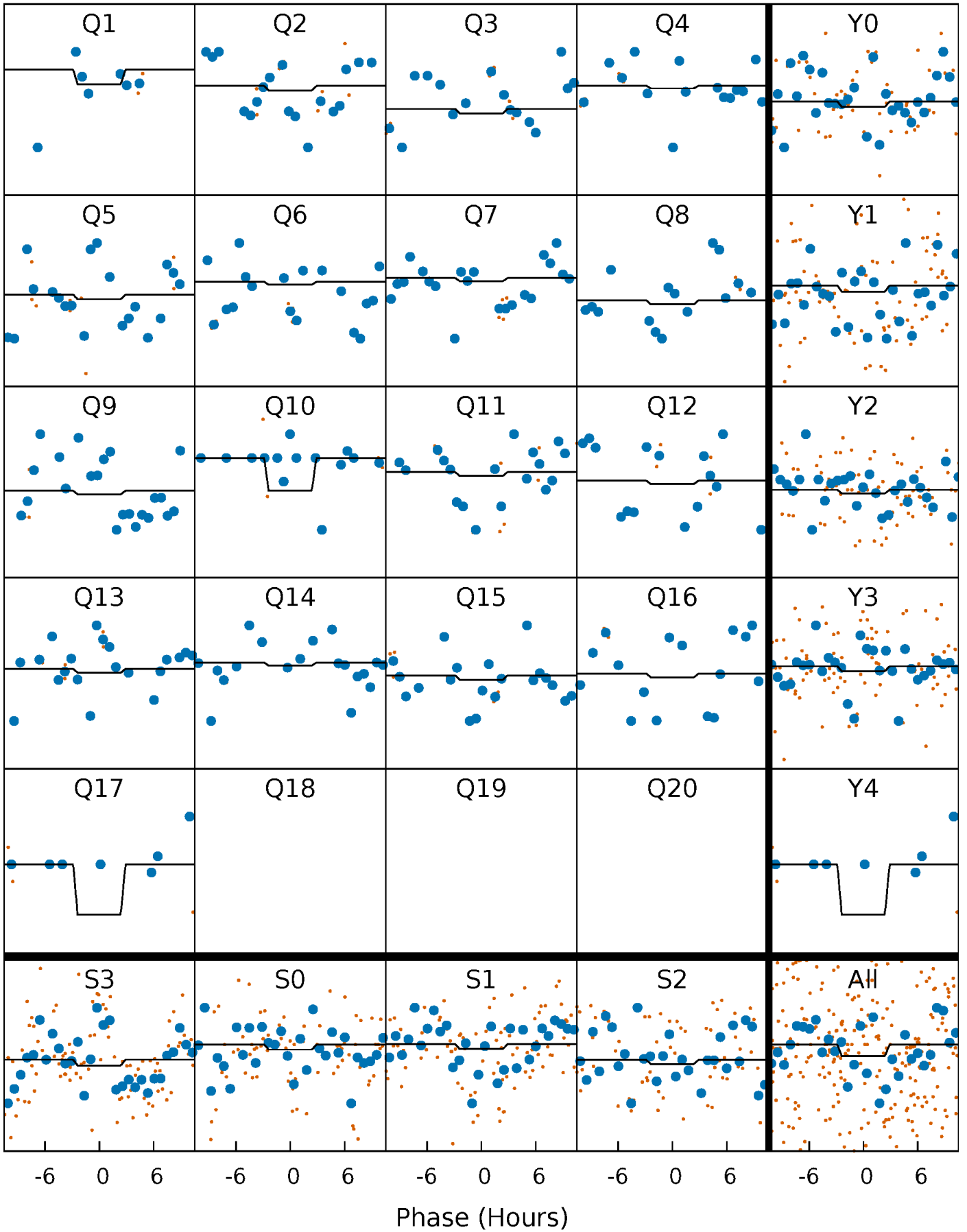
DV Quarter-Phased Transit Curves

TCE 007976136-07 $P = 6.310436$ Days $T_0 = 134.964120$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

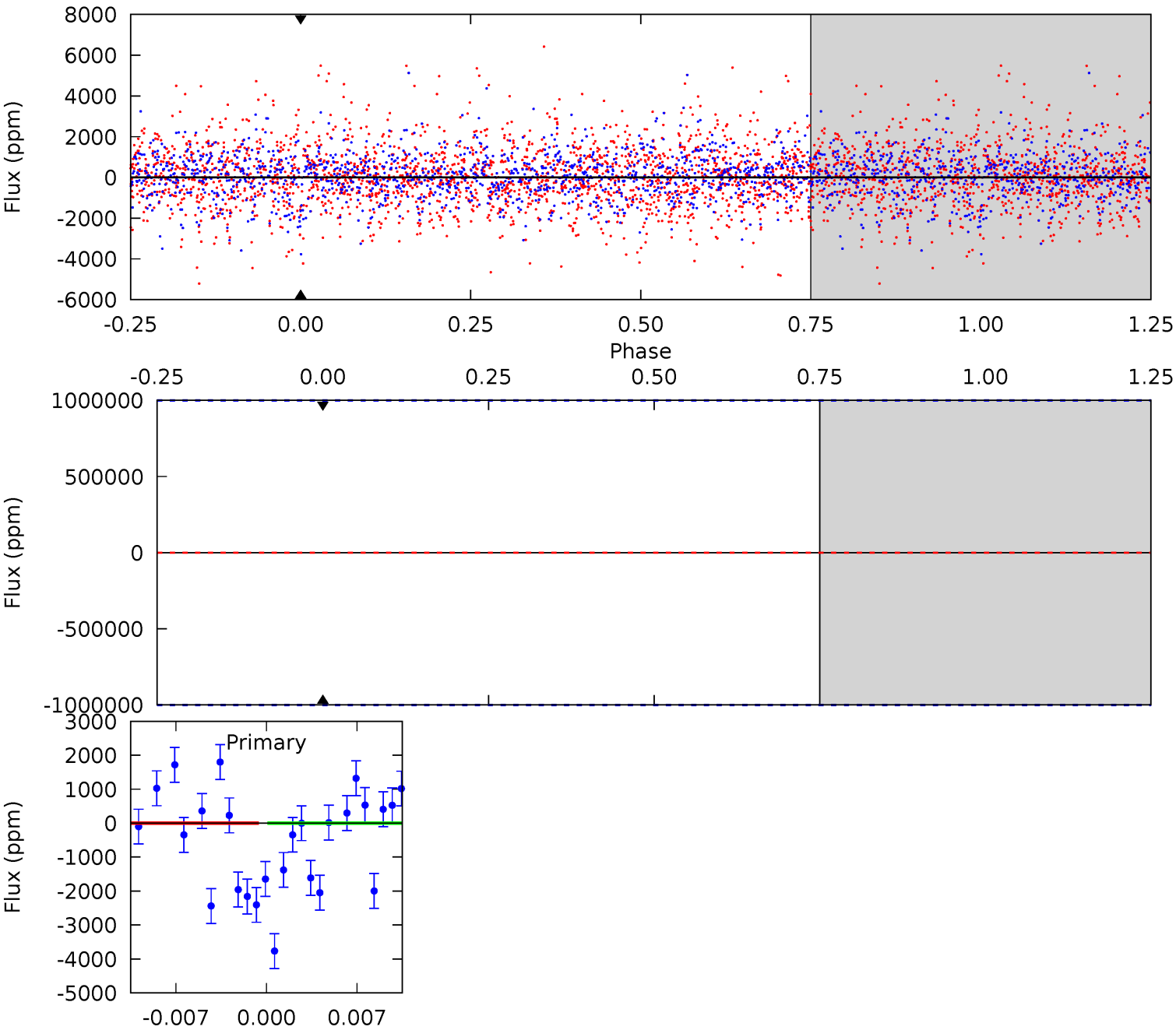
TCE 007976136-07 P= 6.310436 Days $T_0=134.883339$ (BKJD)



DV Model-Shift Uniqueness Test

007976136-07, P = 6.310436 Days, E = 128.653684 Days

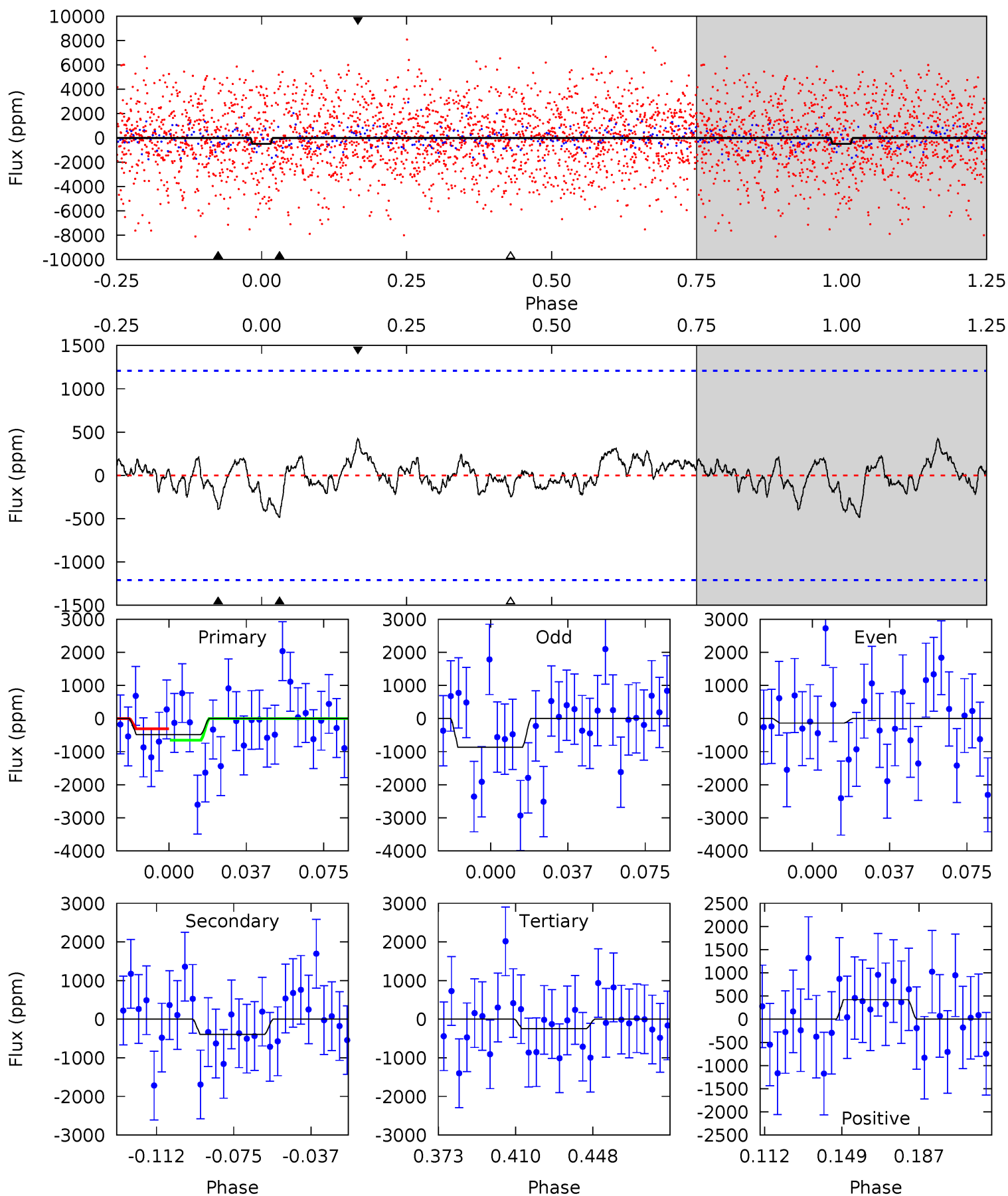
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

007976136-07, P = 6.310436 Days, E = 128.572903 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.92	1.56	0.98	1.66	4.77	2.08	0.52	0.94	0.26	0.59	-0.10	1.45	3.78	0.46	0.68



Stellar Parameters For KIC 007976136

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6063^{+169}_{-211}	$4.476^{+0.048}_{-0.192}$	$0.070^{+0.200}_{-0.350}$	$1.012^{+0.286}_{-0.114}$	$1.117^{+0.120}_{-0.174}$	$1.519^{+0.379}_{-0.737}$
	+3%/-3%	+1%/-4%	+286%/-500%	+28%/-11%	+11%/-16%	+25%/-49%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 007976136-07 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$8.99^{+8.56}_{-6.36}$	1452^{+96}_{-65}	-3874^{+27452}_{-17369}	$-24.725^{+5847.606}_{-5181.175}$
Alt.	-396 ± 254	$8.99^{+8.21}_{-6.33}$	1451^{+100}_{-69}	3452^{+1991}_{-755}	11^{+121}_{-9}

T_{max} = Theoretical Maximum Planetary Temperature
 T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)
 A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

DV Centroid Data

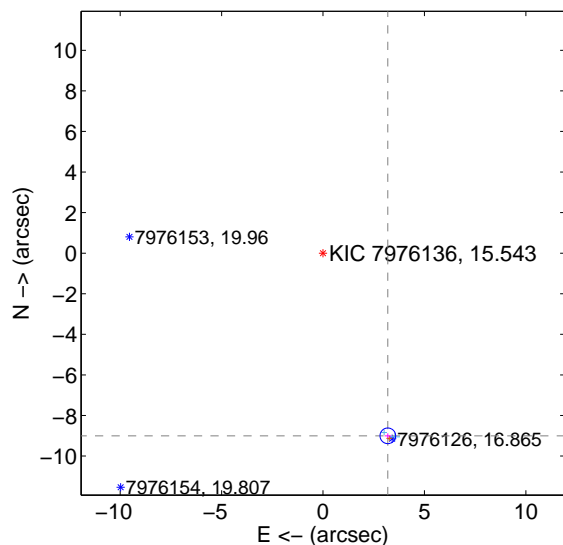
Supplemental centroid analysis for 007976136-07. Kepler magnitude: 15.54. Transit SNR -1.00

There are 2 quarters with good PRF difference image offsets

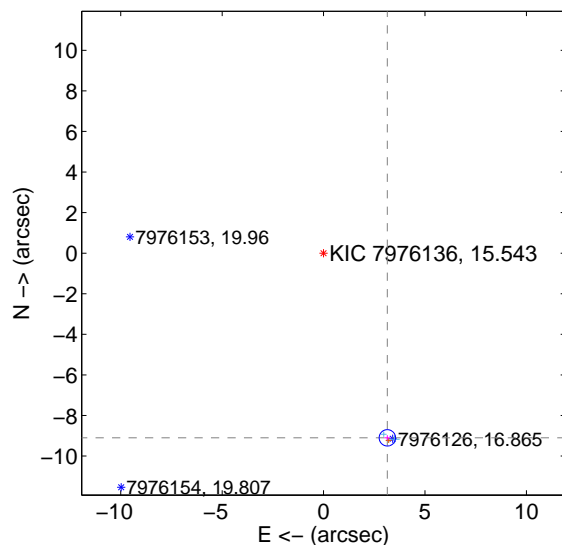
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	9.551 ± 0.129	74.33	-3.193 ± 0.158	-9.002 ± 0.124
PRF-fit source offset from KIC position	9.628 ± 0.134	71.67	-3.143 ± 0.157	-9.101 ± 0.131
photometric centroid source offset	0.88 ± 0.69	1.28	-0.09 ± 0.42	-0.87 ± 0.69

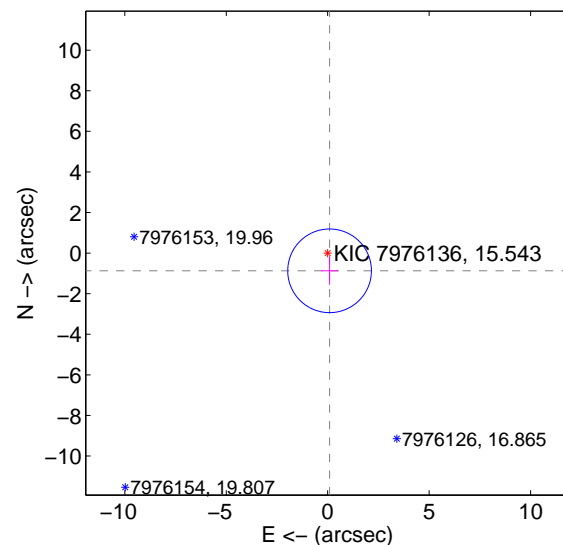
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

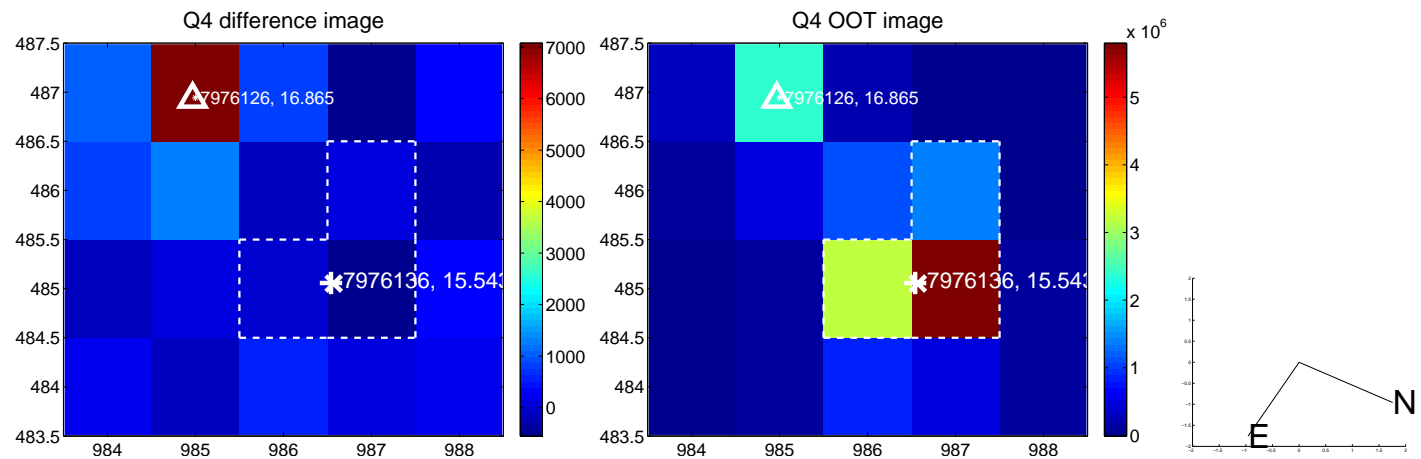
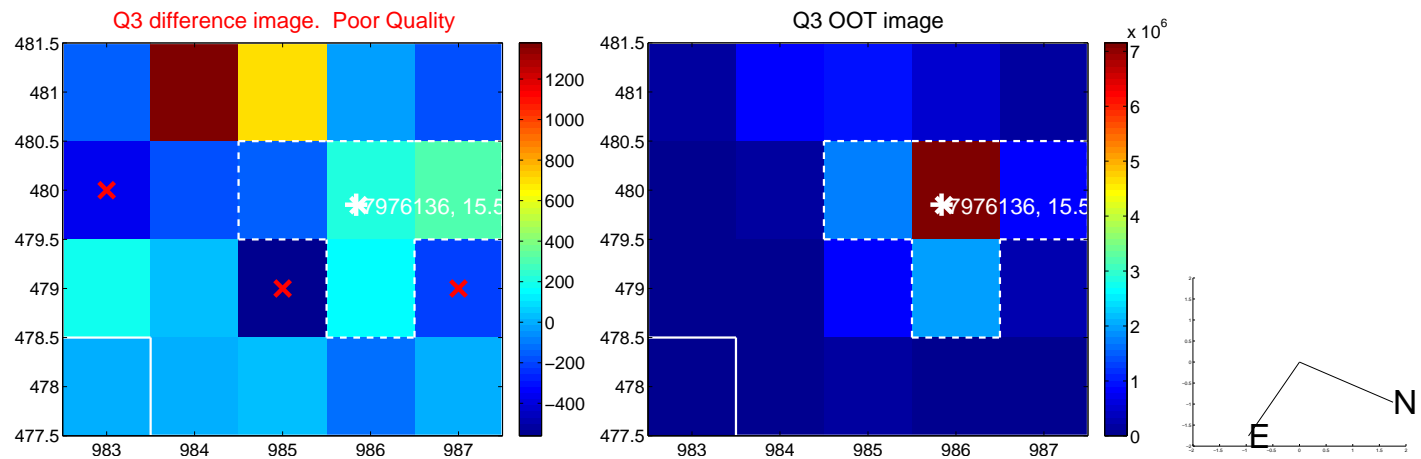
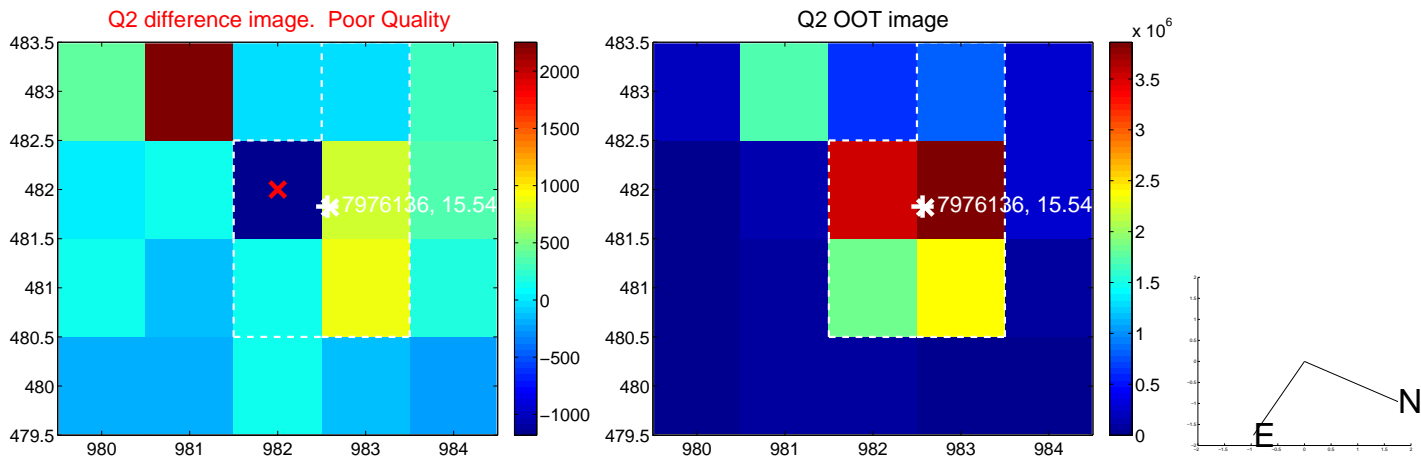
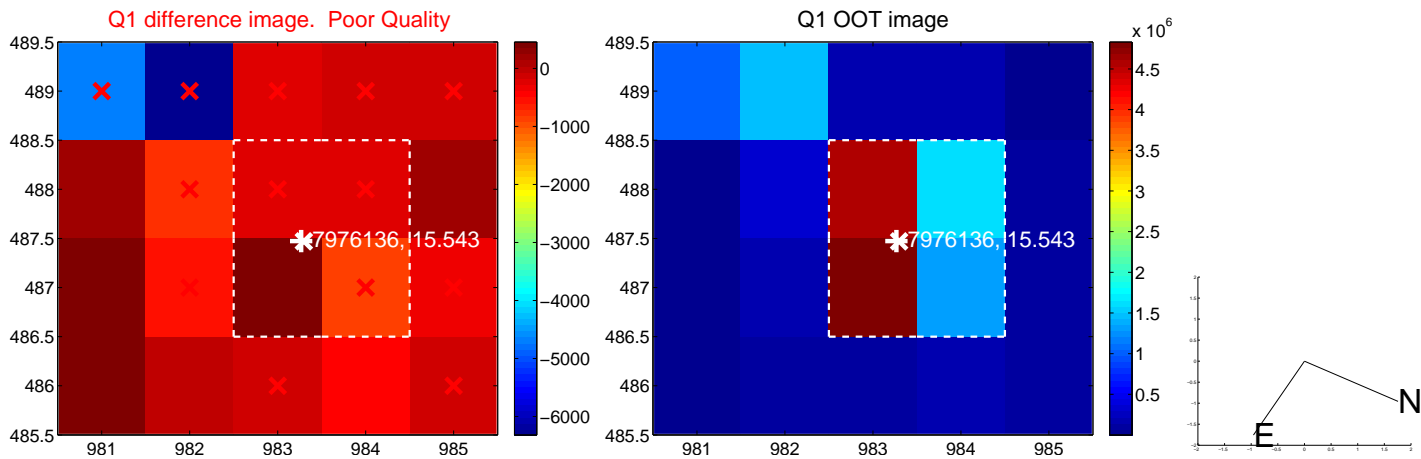


offset from photometric centroids

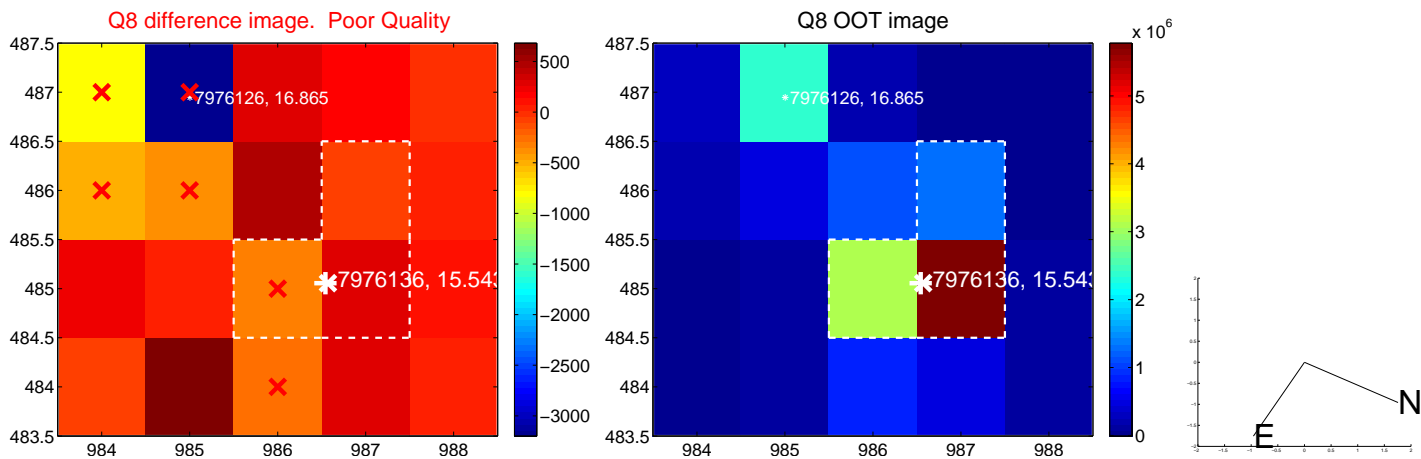
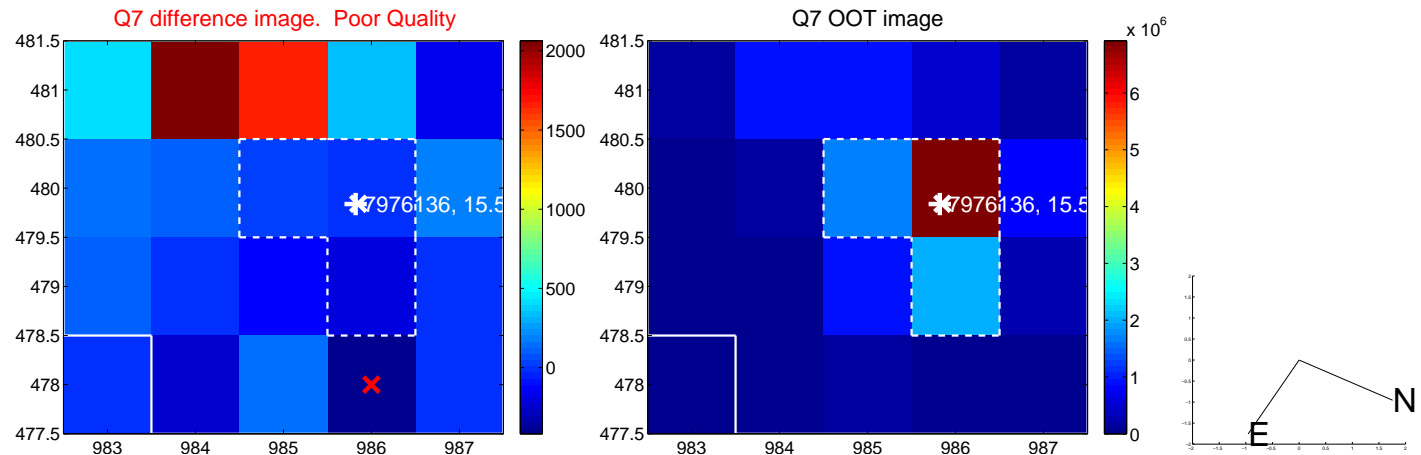
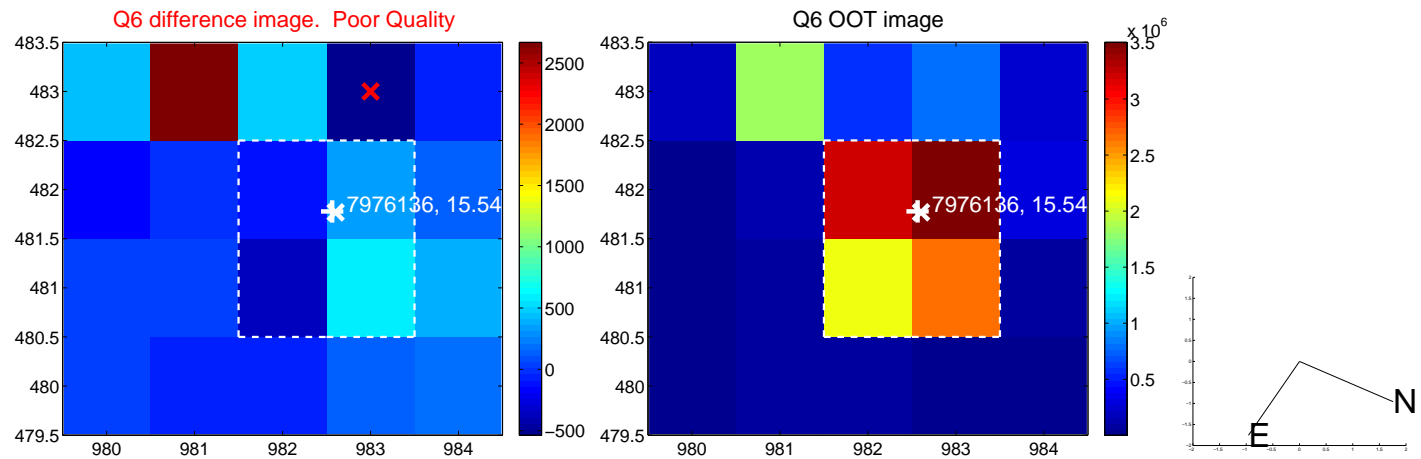
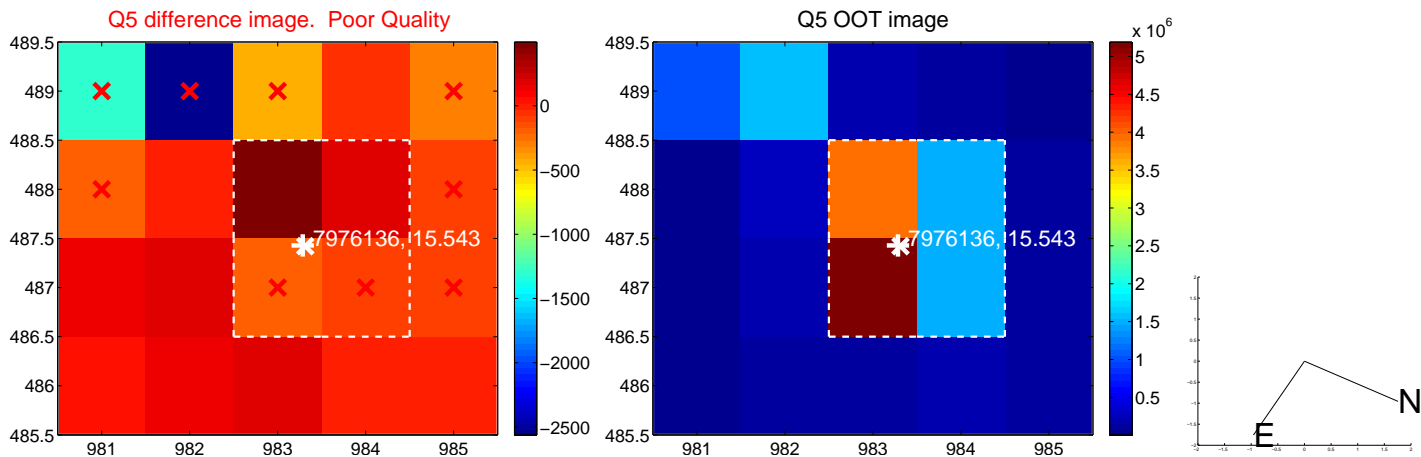


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

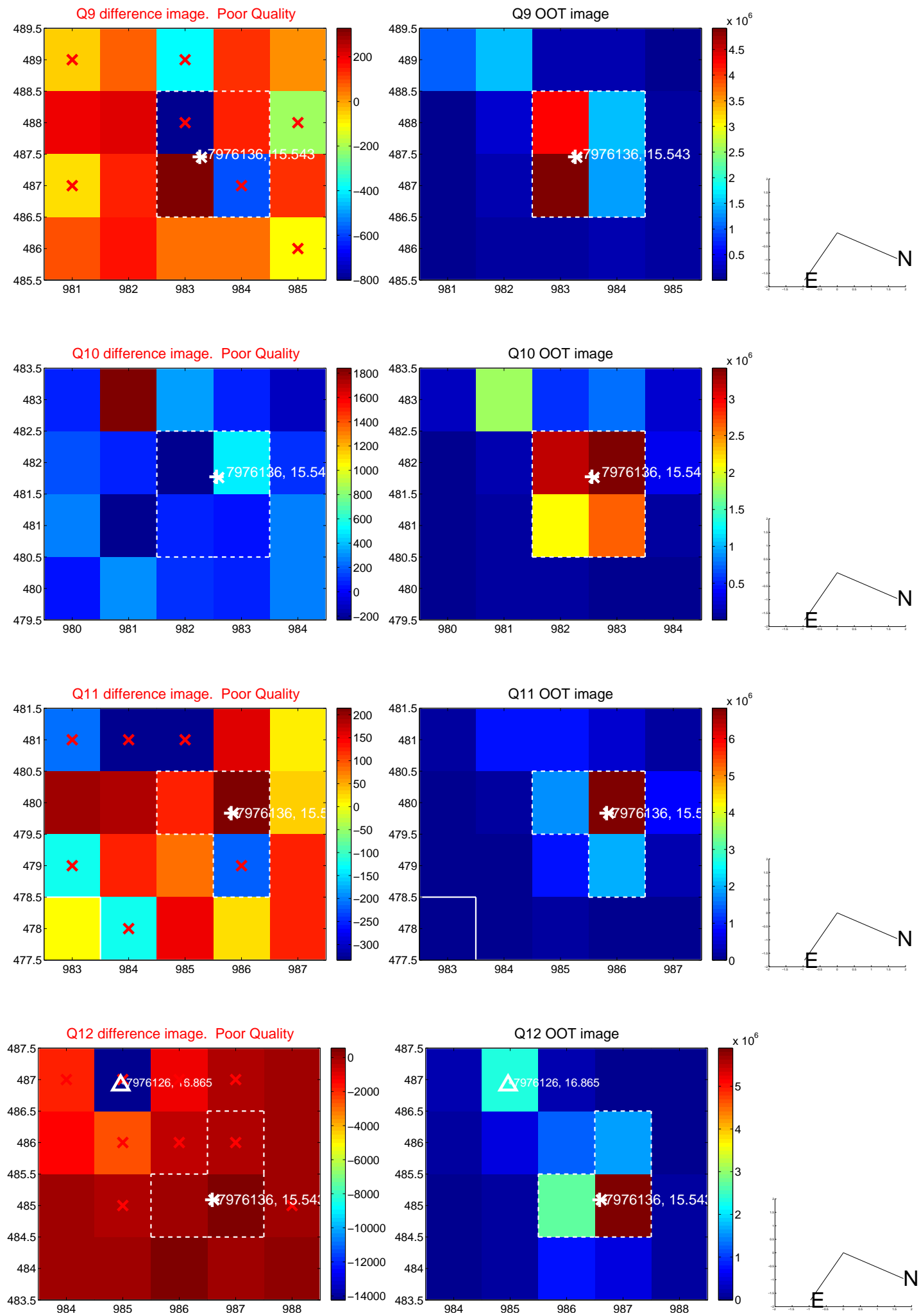
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



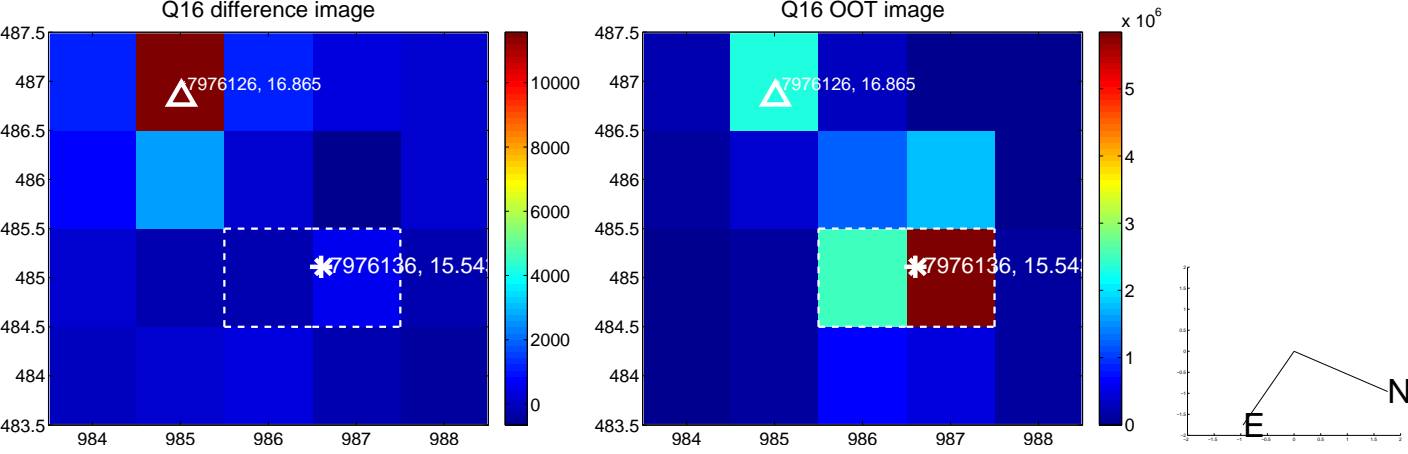
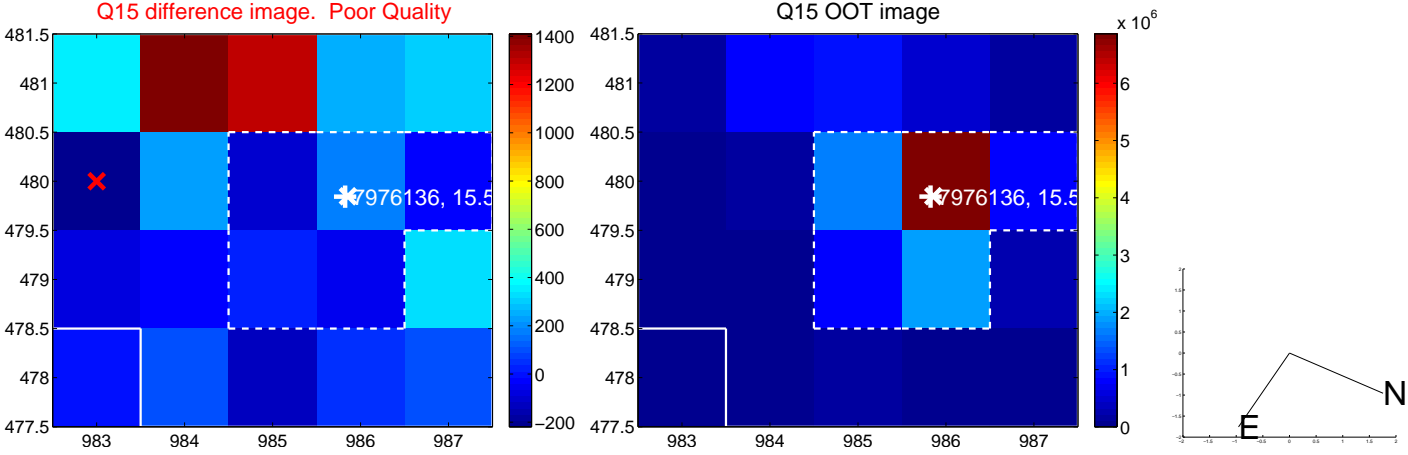
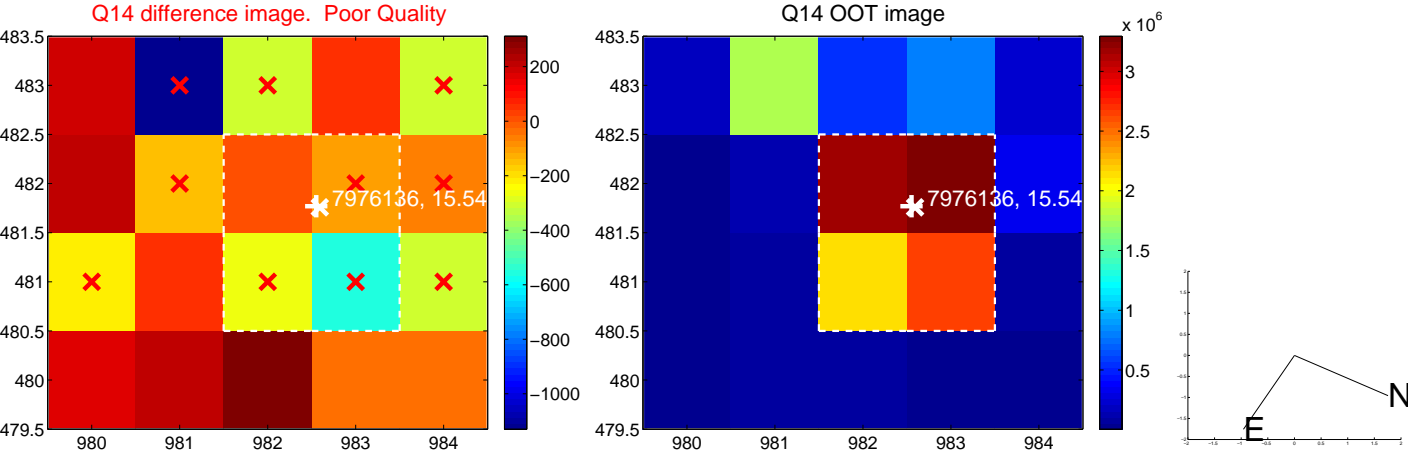
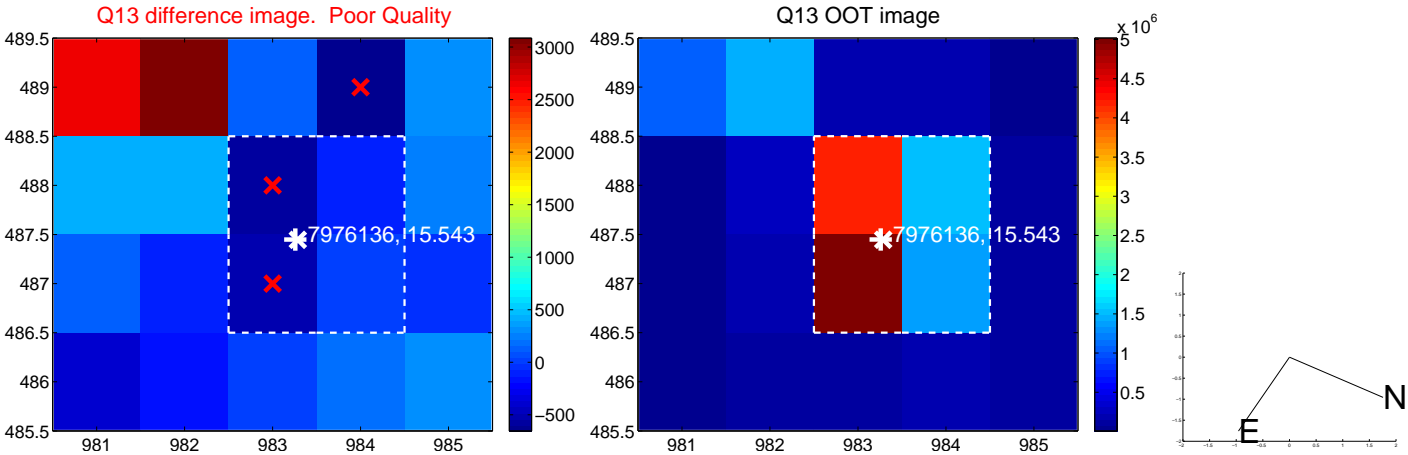
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



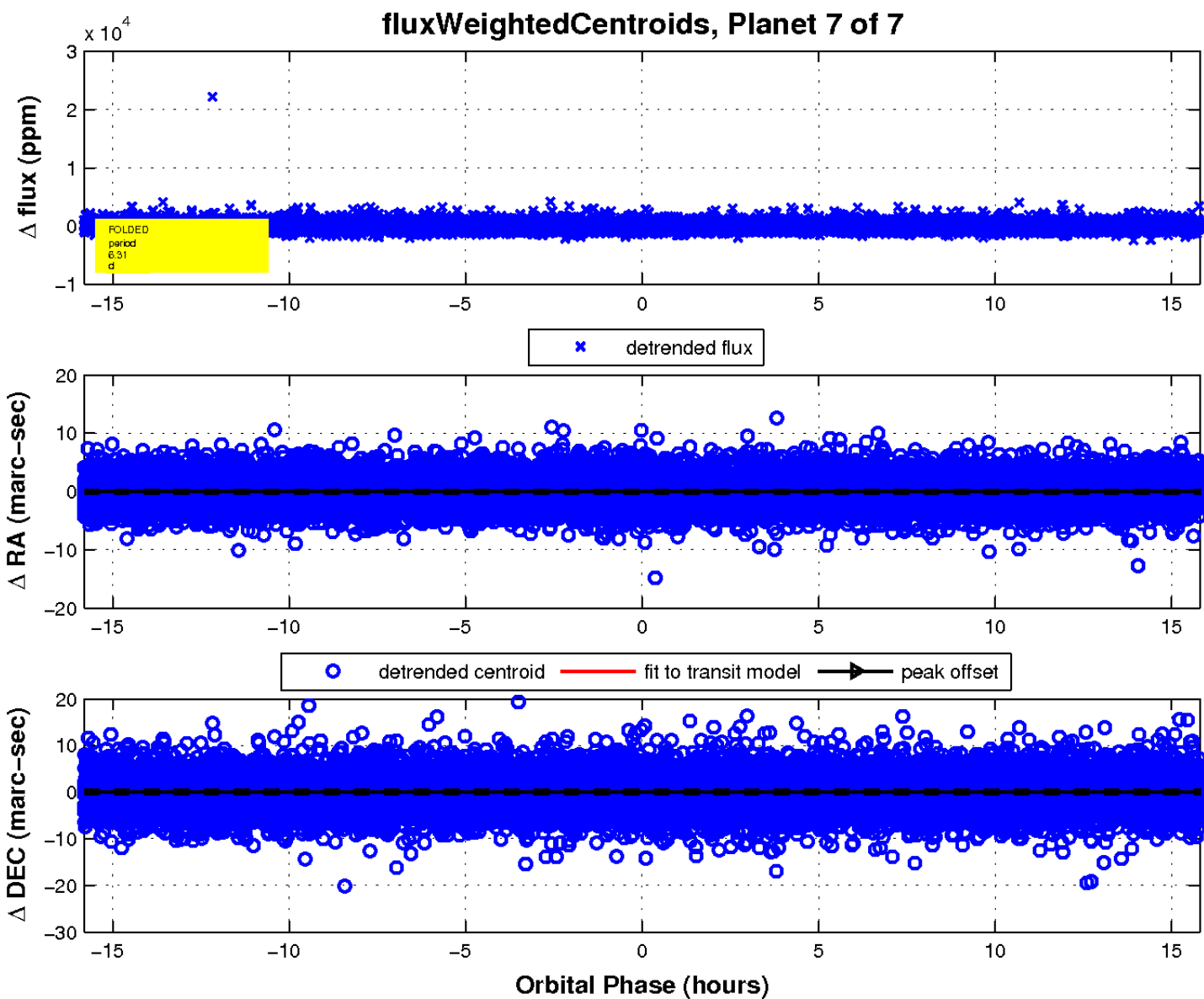
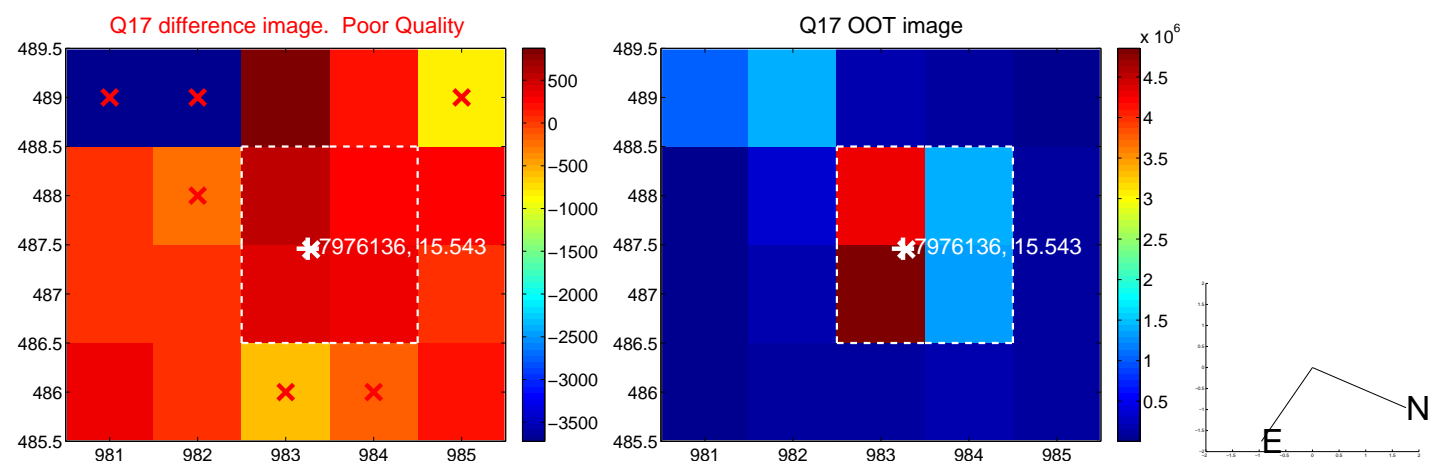
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

