

KIC 011548140

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})
011548140-01	OBS	0256.01	1.378635	132.561387	1769.2	0.907	110.8	30.8	0.44	3440	2.03	68.58
011548140-02	OBS	No	1.375607	132.570133	1410.5	5.000	11.5	-1.0	0.44	3440	1.60	68.78
011548140-03	OBS	No	4.139812	132.171679	1210.8	3.500	8.8	-1.0	0.44	3440	1.49	15.83
011548140-04	OBS	No	119.622896	170.927926	2425.9	9.059	8.4	5.7	0.44	3440	2.13	0.18
011548140-05	OBS	No	146.834095	200.640362	4557.5	3.243	9.7	7.2	0.44	3440	2.89	0.14

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011548140-01	OBS	FP	0.00	0	1	0	0	SWEET_EB
011548140-02	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_NOFITS
011548140-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_NOFITS
011548140-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
011548140-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—HALO_GHOST

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.

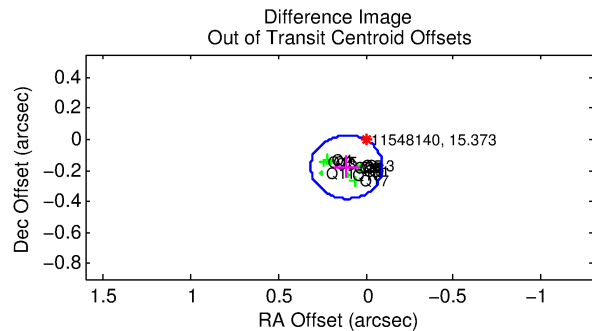
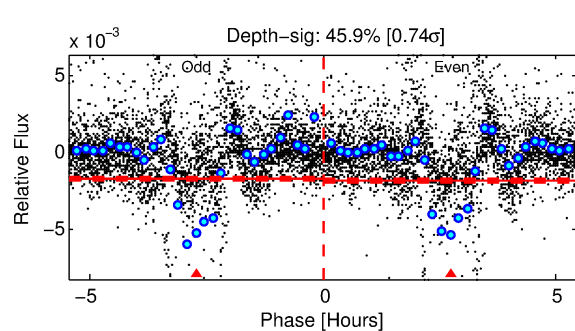
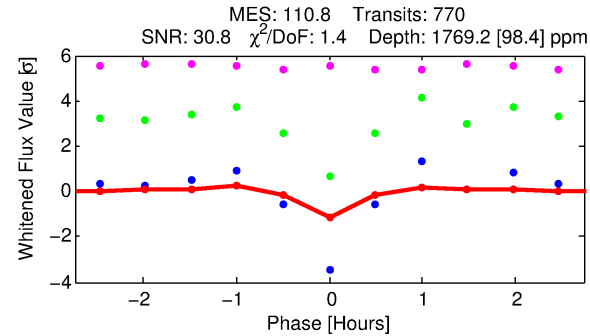
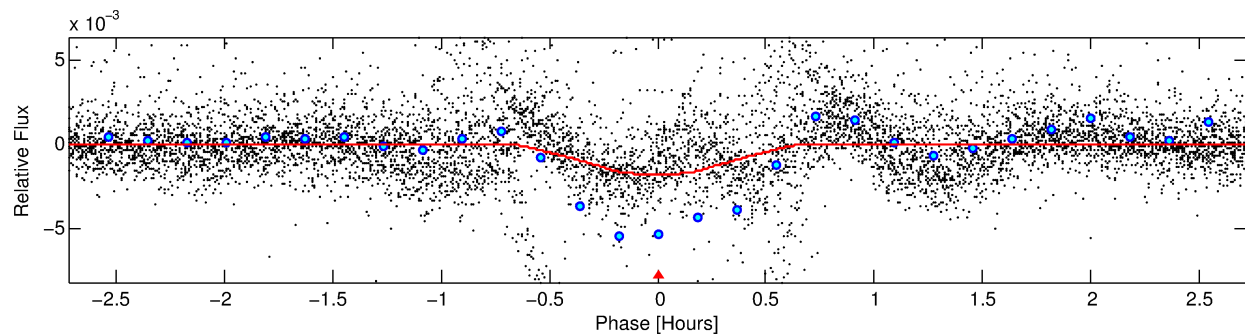
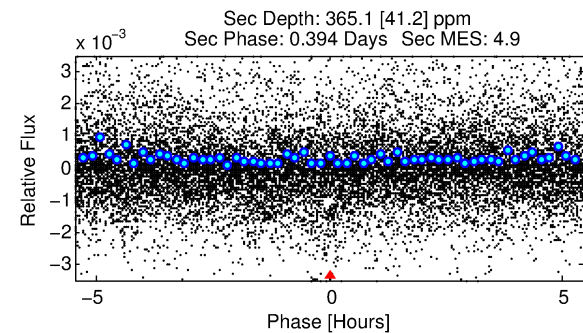
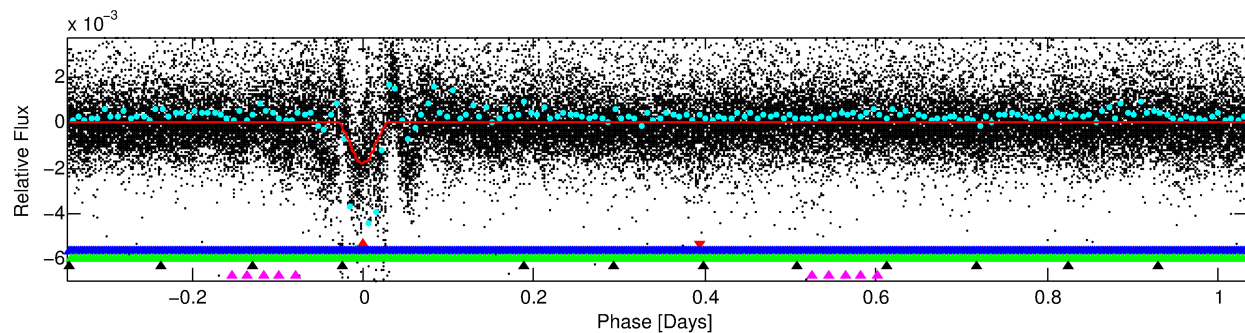
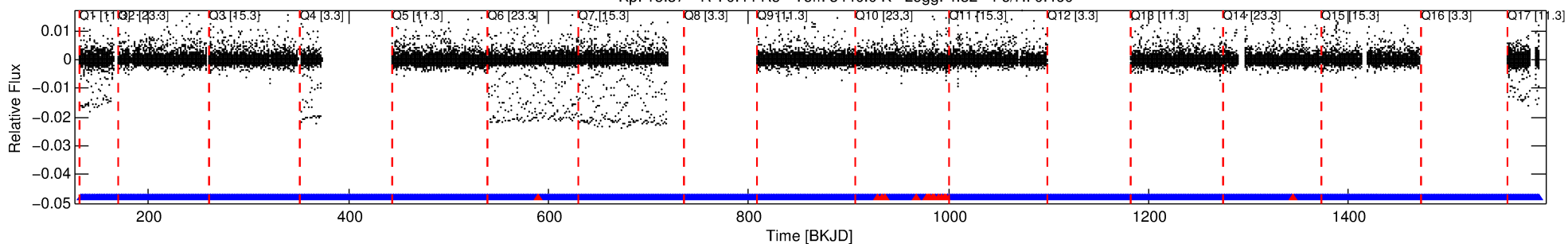
Ephemeris Match Information For 011548140-01

No Significant Match Found

DV One-Page Summary

KIC: 11548140 Candidate: 1 of 5 Period: 1.379 d
KOI: K00256.01 Corr: 0.761

Kp: 15.37 R*: 0.44 Rs Teff: 3440.0 K Logg: 4.82 Fe/H: 0.460



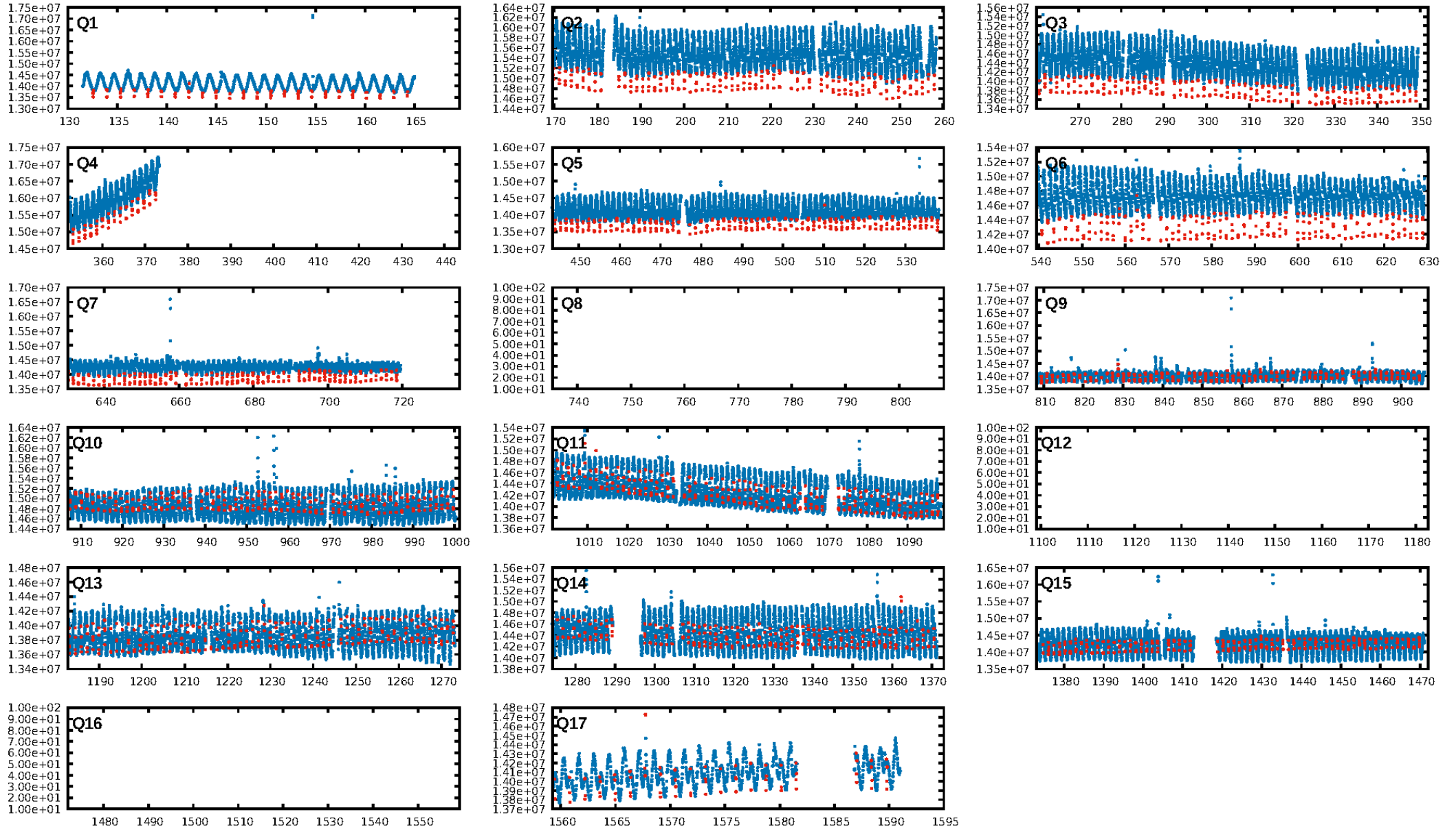
DV Fit Results:

Period = 1.37864 [0.00000] d
Epoch = 132.5614 [0.0005] BKJD
Rp/R* = 0.0423 [0.0221]
a/R* = 8.65 [16.31]
b = 0.73 [1.24]
Seff = 68.58 [9.30]
Teq = 734 [25] K
Rp = 2.03 [1.09] Re
a = 0.0188 [0.0016] AU
Ag = 17.25 [18.25] [0.89σ]
Teffp = 2312 [611] K [2.58σ]

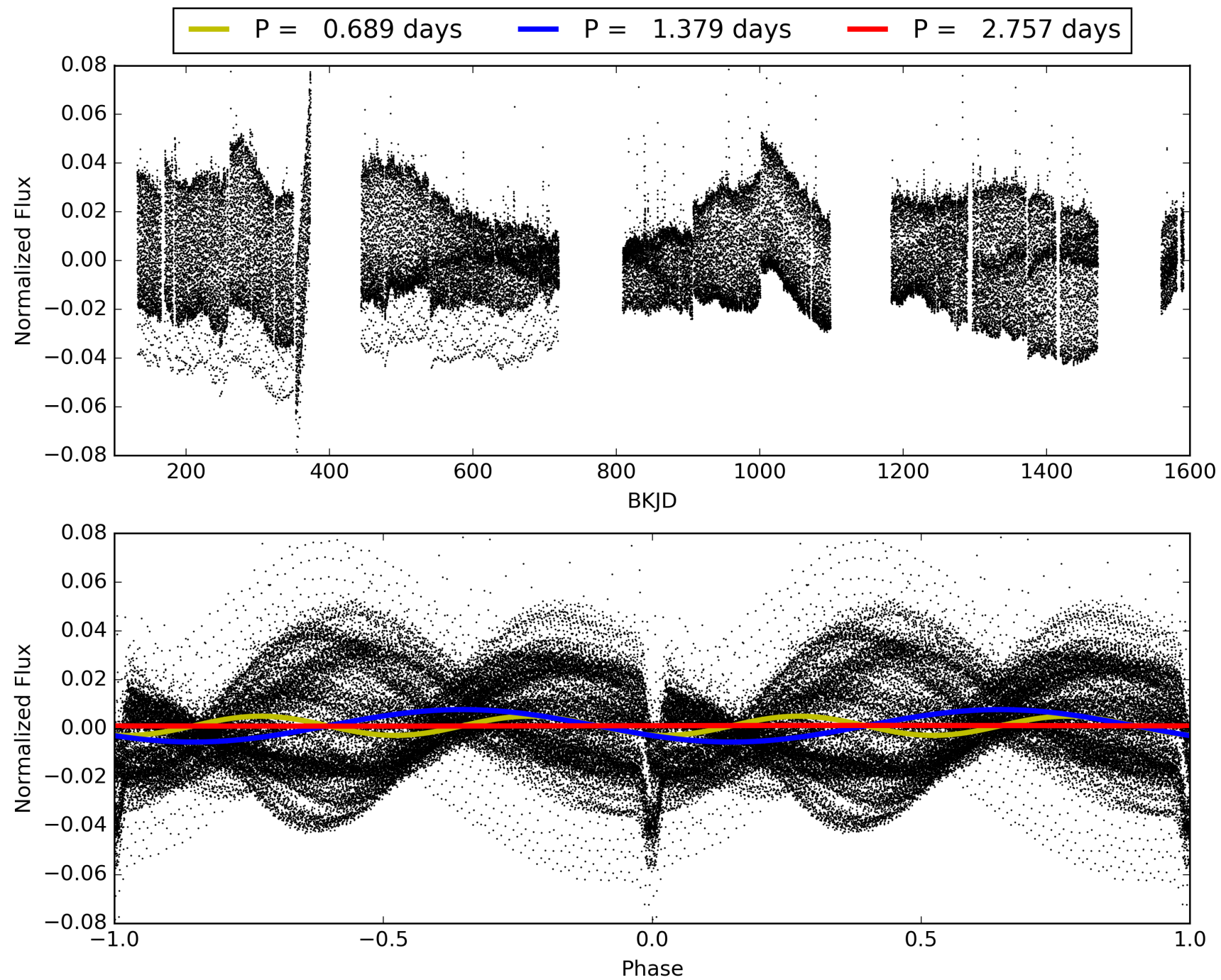
DV Diagnostic Results:

ShortPeriod-sig: 1.1% [0.01σ]
LongPeriod-sig: 100.0% [18.33σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.98 [696/711]
GhostDiagnostic-chr: 1.127
Centroid-sig: 0.0%
Centroid-so: 2.855 arcsec [17.38σ]
OotOffset-rm: 0.208 arcsec [3.06σ]
KicOffset-rm: 0.174 arcsec [2.39σ]
OotOffset-st: 4/4/1/5 [14]
KicOffset-st: 4/4/1/5 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 0.64 [9/14]

TCE 011548140-01, PDC Light Curves

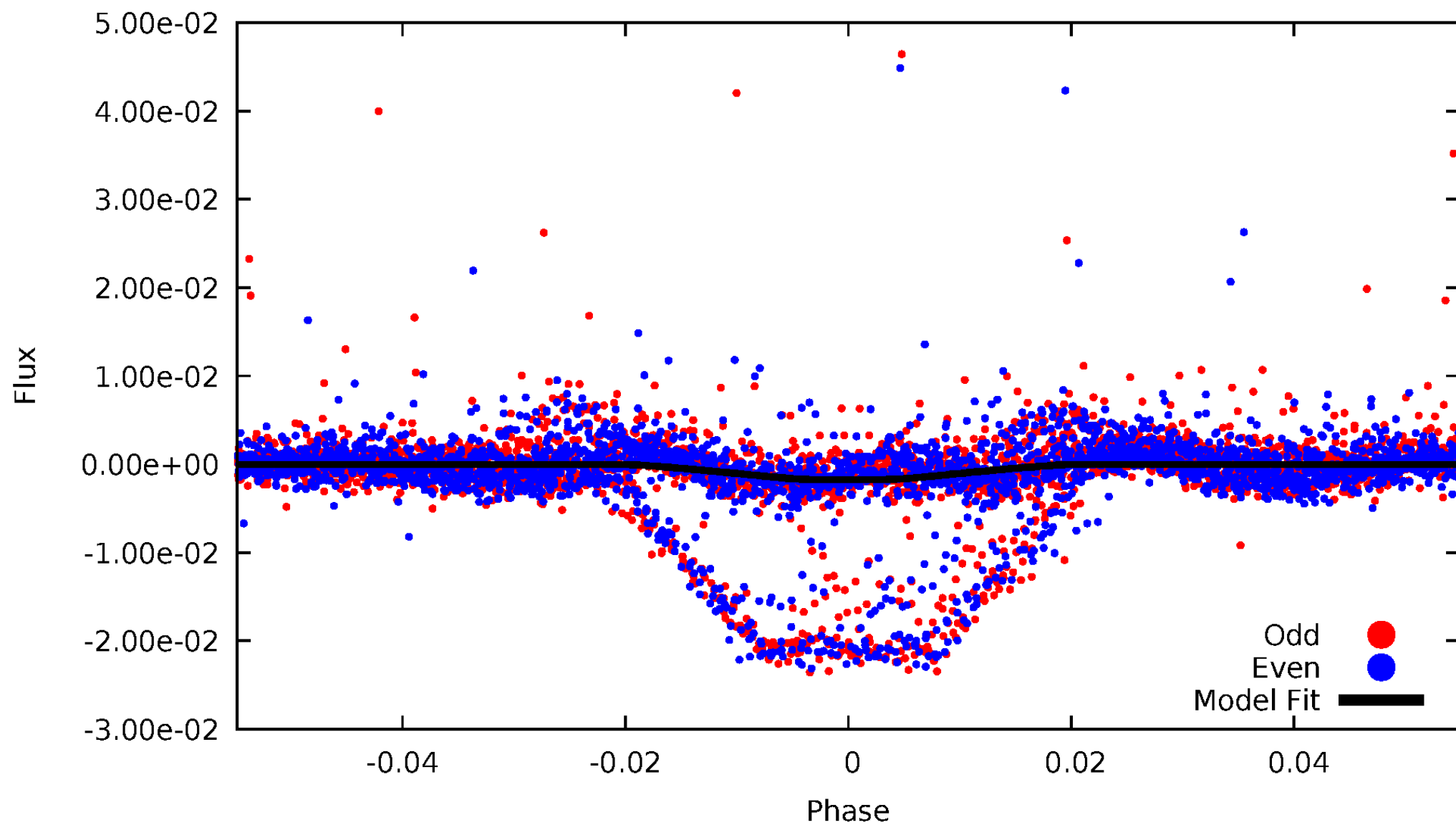


TCE 011548140-01



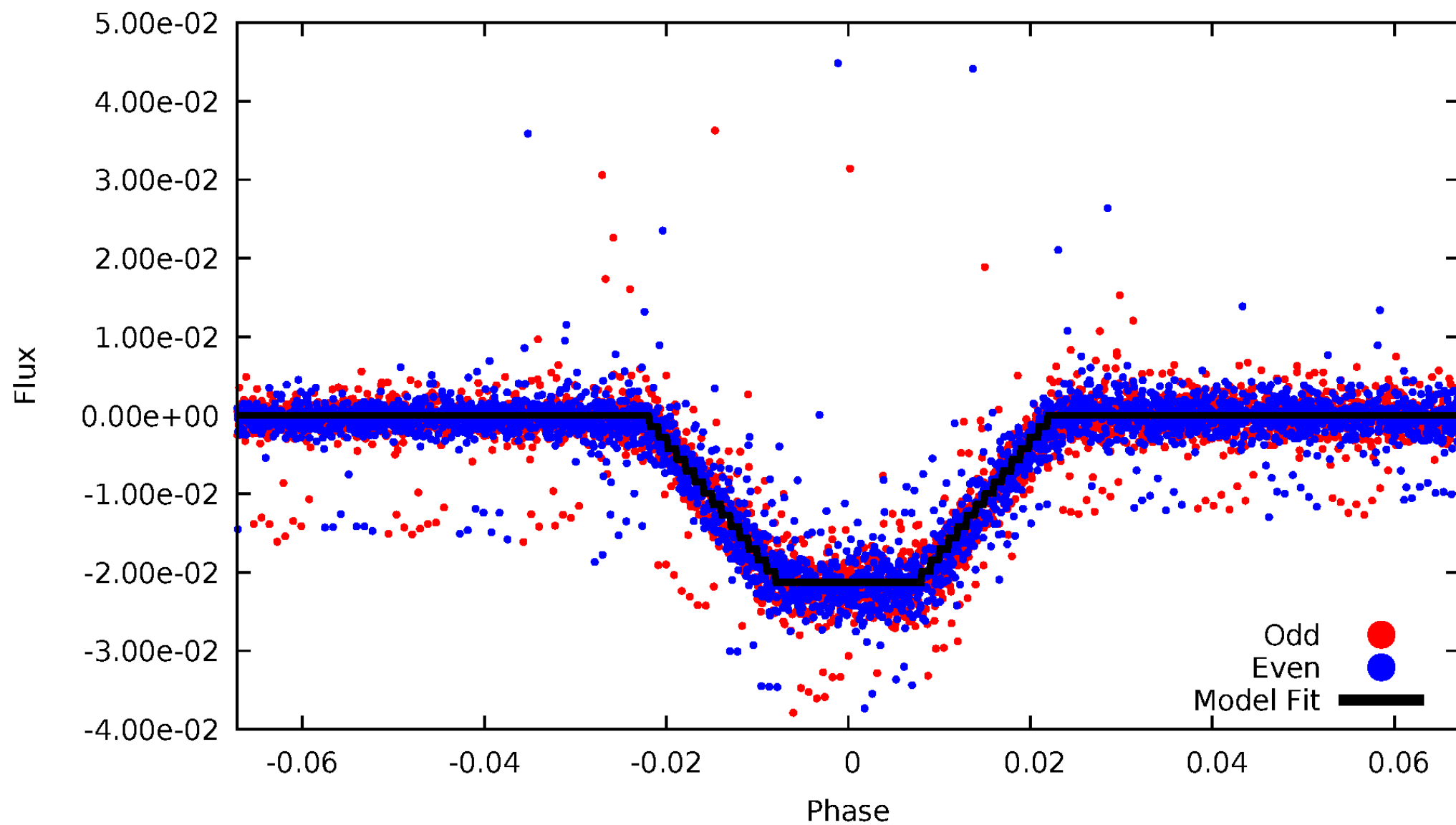
DV Odd/Even

TCE 011548140-01



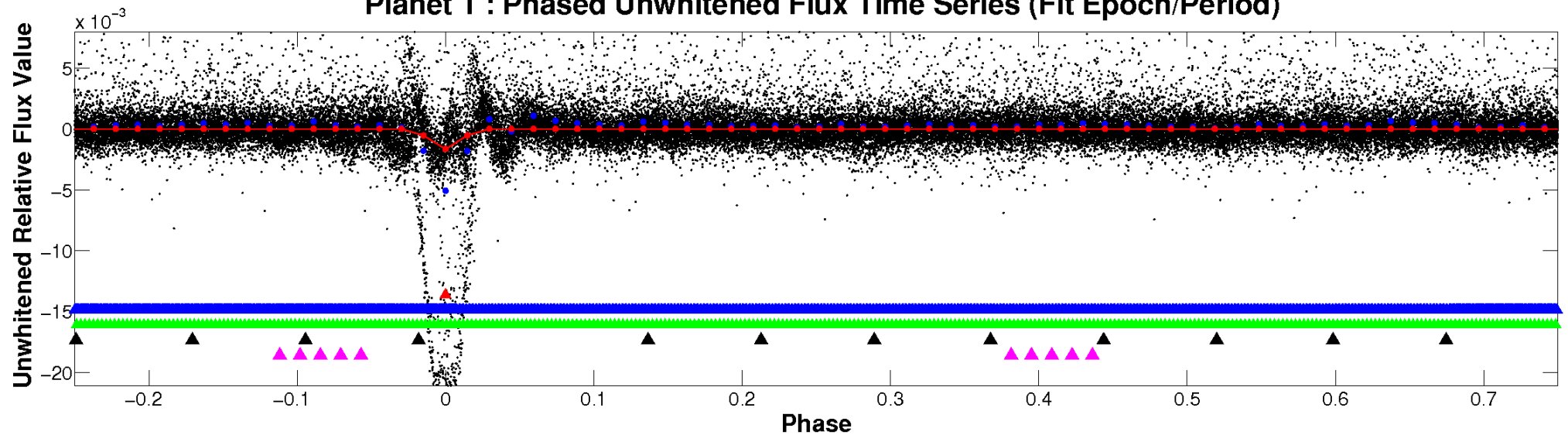
ALT Odd/Even

TCE 011548140-01

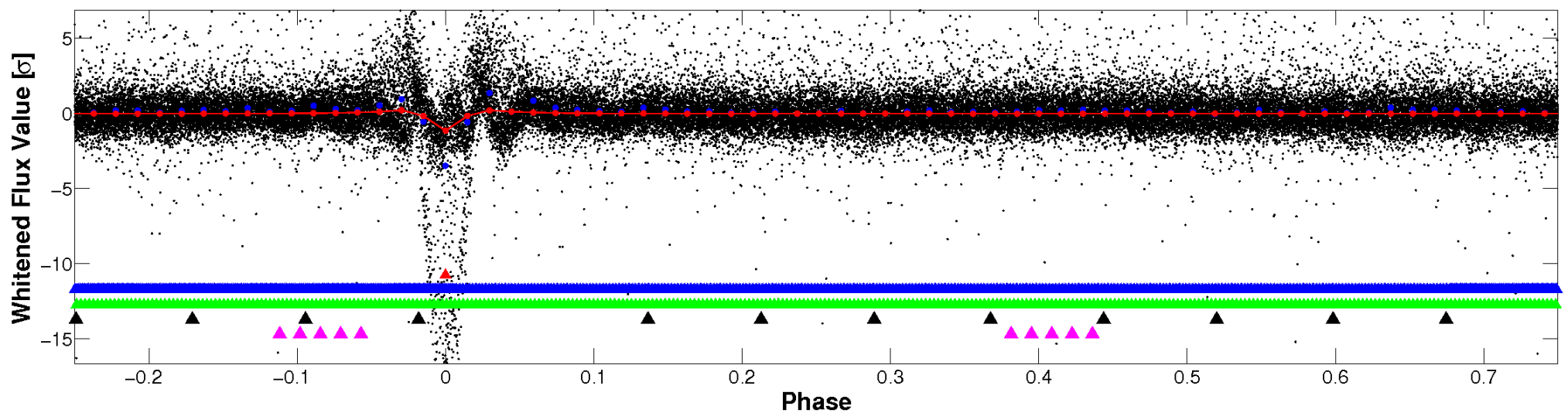


Non-Whitened Vs. Whitened Light Curve

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

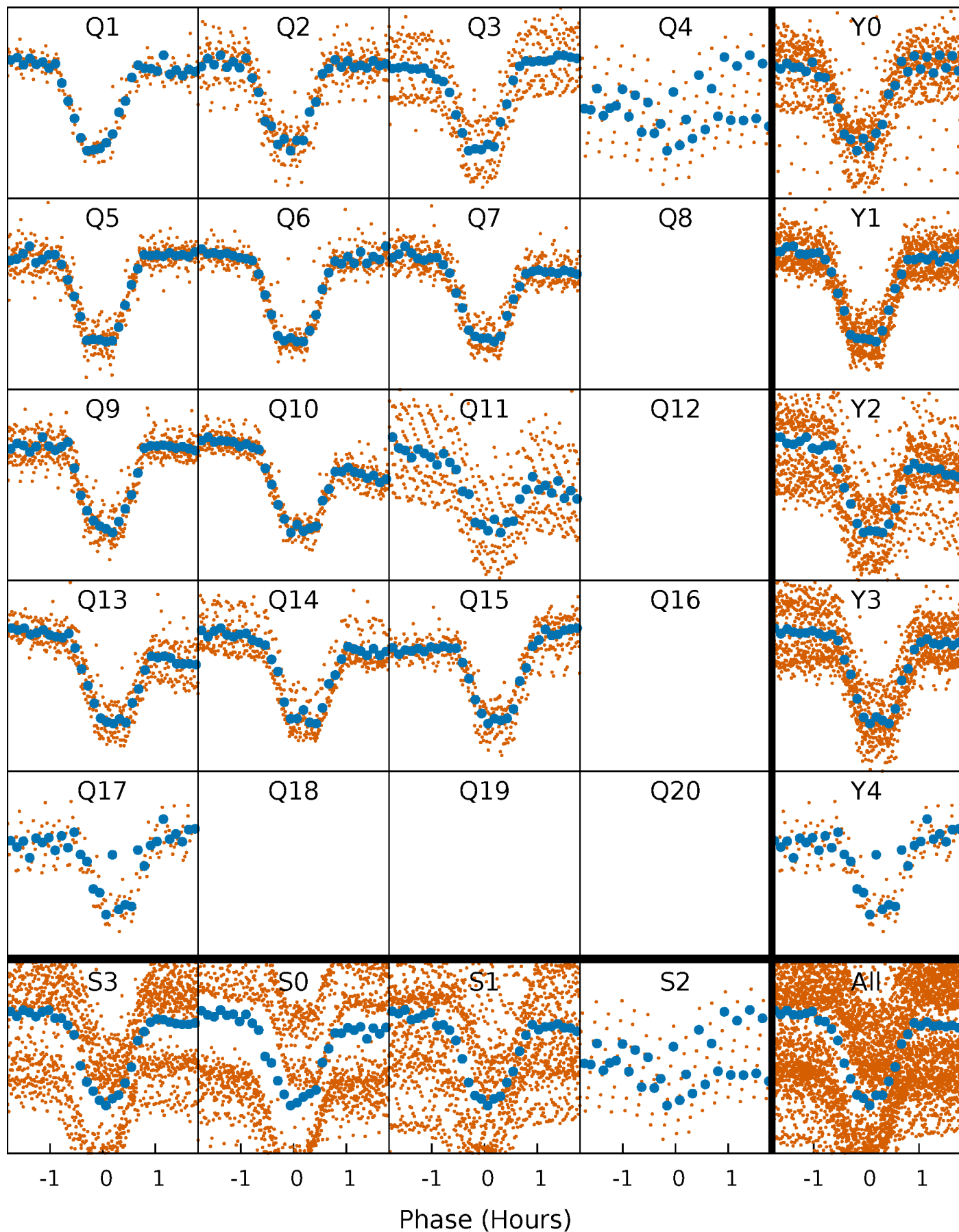


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



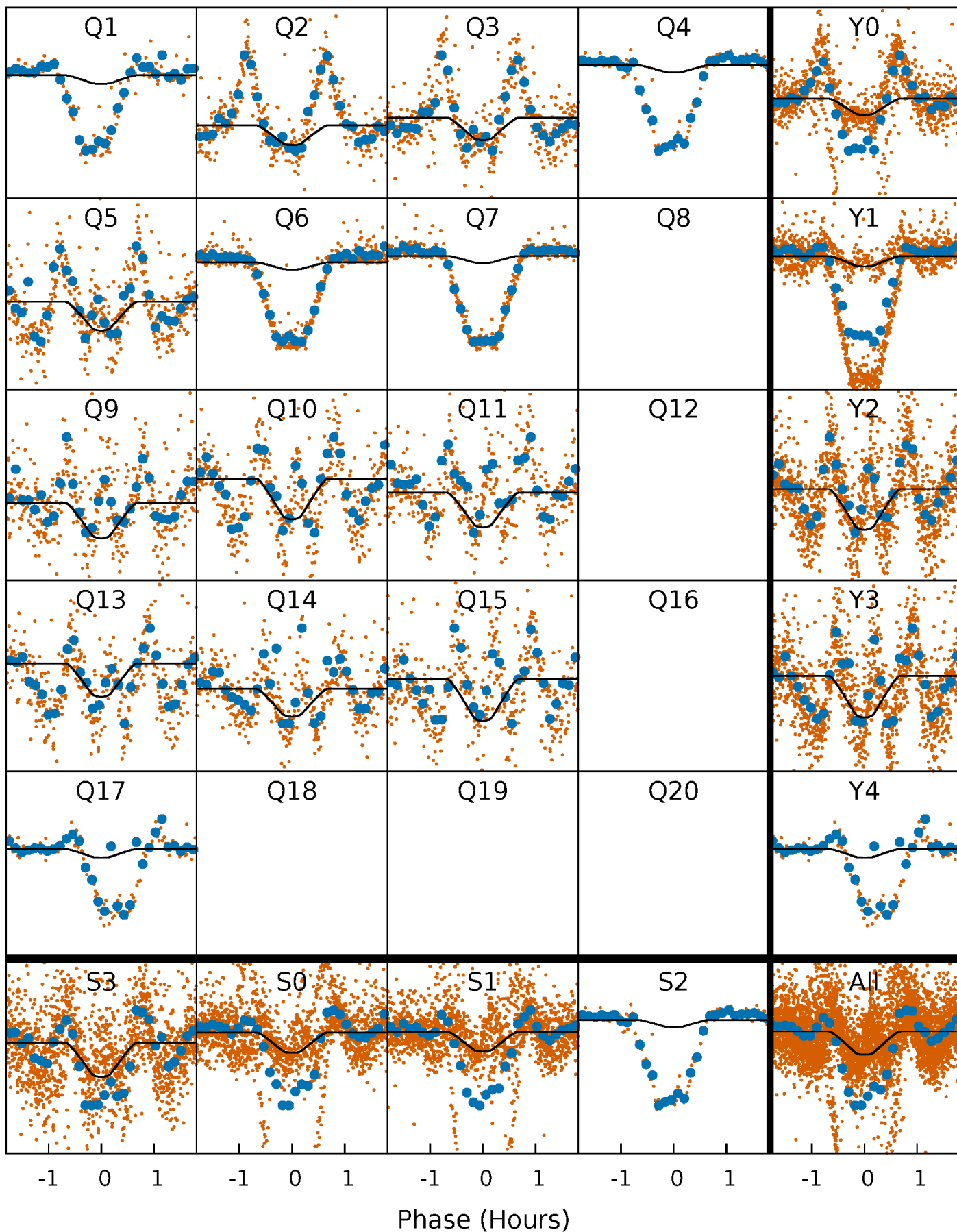
PDC Quarter-Phased Transit Curves

TCE 011548140-01 P= 1.378635 Days $T_0=132.561387$ (BKJD)



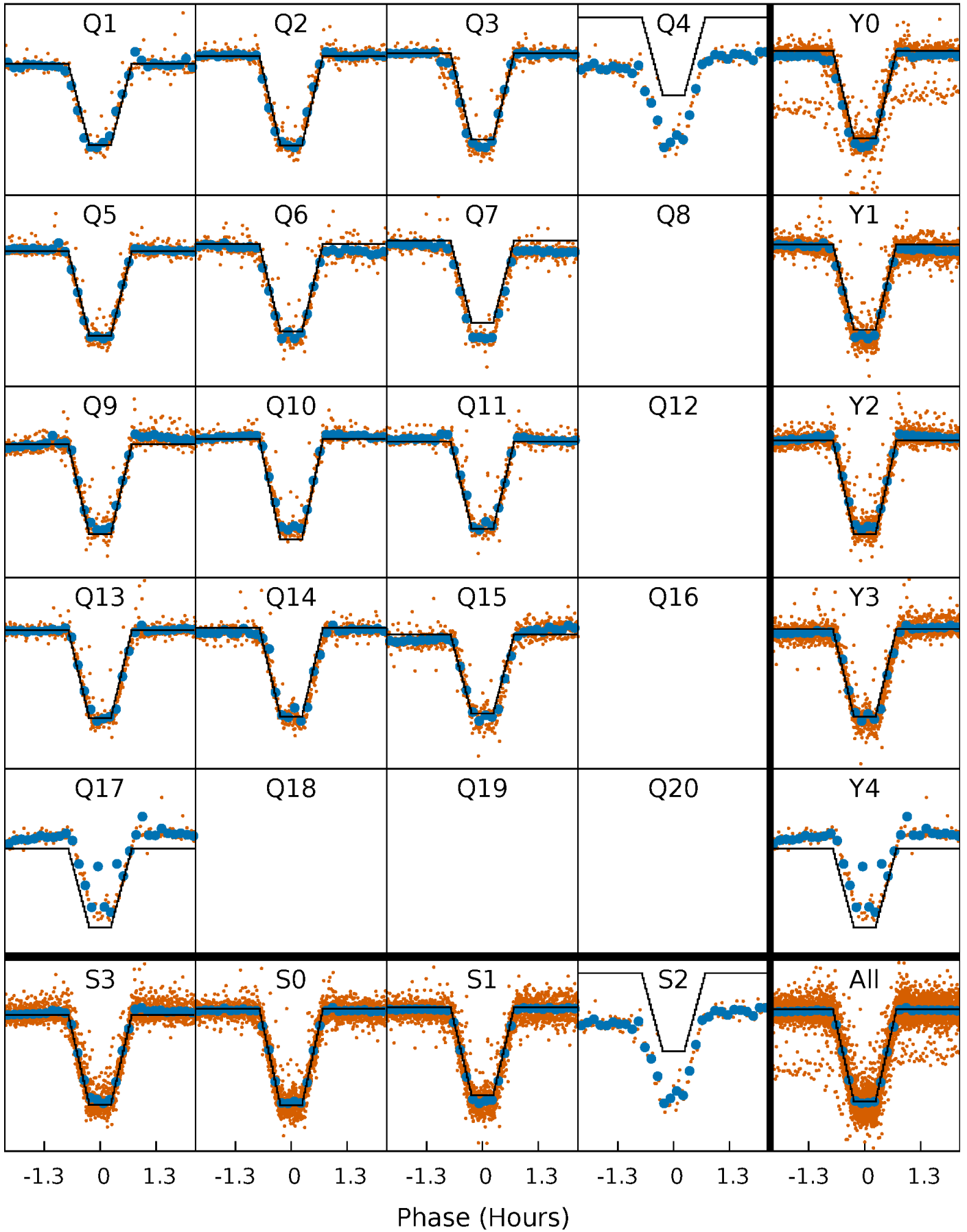
DV Quarter-Phased Transit Curves

TCE 011548140-01 P= 1.378635 Days $T_0=132.561387$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

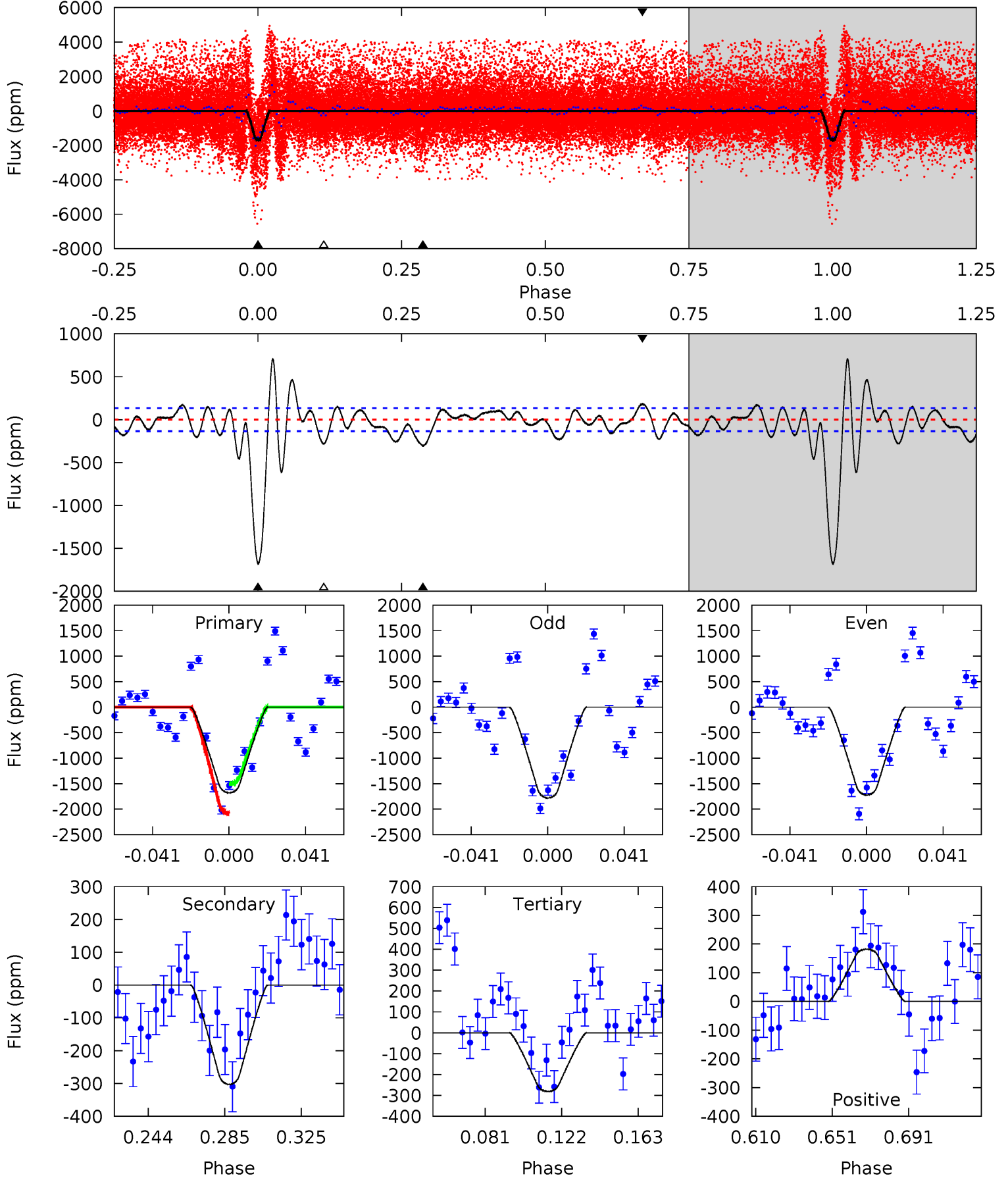
TCE 011548140-01 P= 1.378646 Days $T_0=132.558027$ (BKJD)



DV Model-Shift Uniqueness Test

011548140-01, P = 1.378635 Days, E = 131.182752 Days

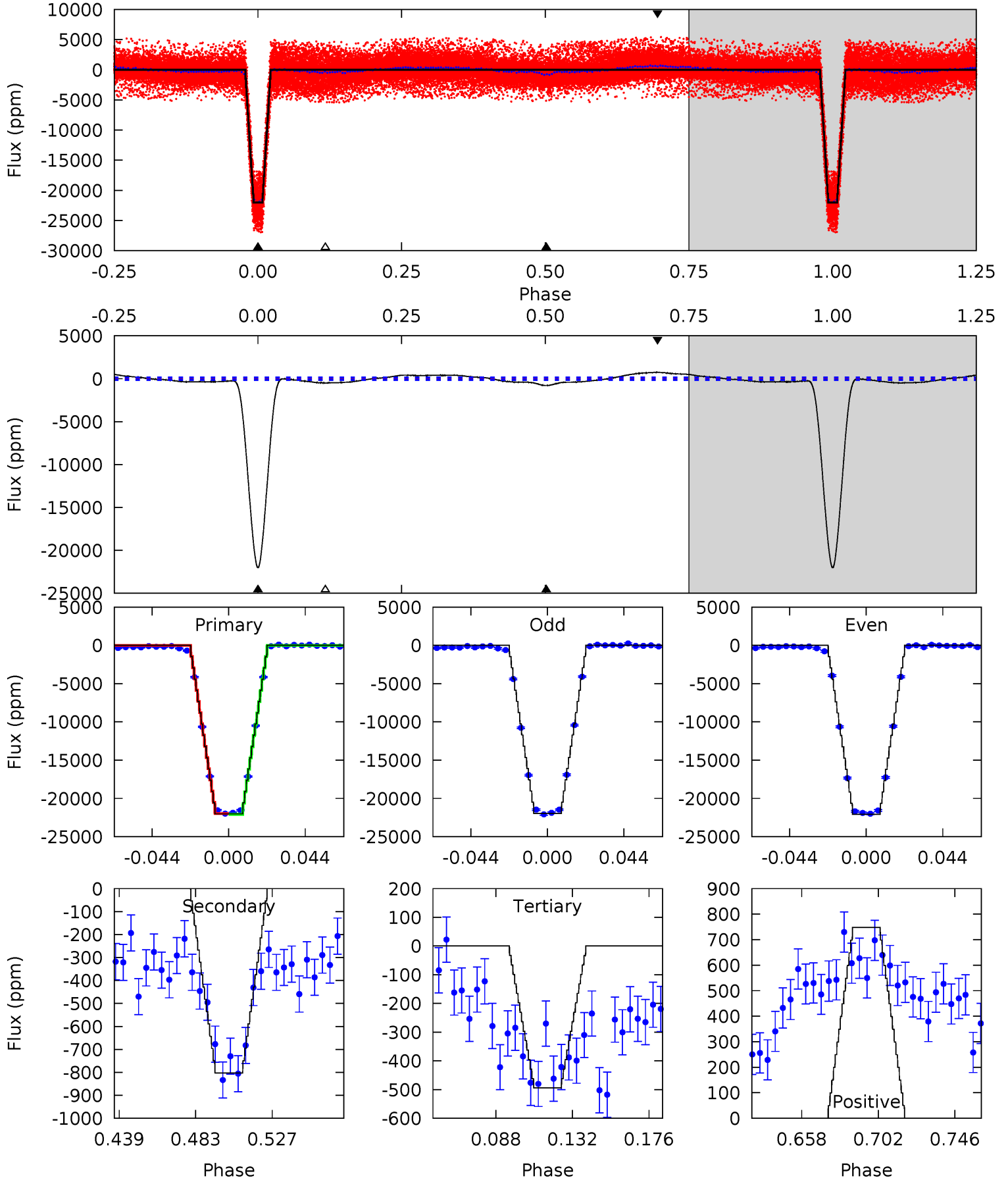
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
59.4	10.7	9.94	6.43	4.75	2.05	4.33	49.4	52.9	0.77	4.28	1.04	3.19	0.30	0



Alt Model-Shift Uniqueness Test

011548140-01, P = 1.378646 Days, E = 131.179381 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
702.4	25.6	15.8	23.9	4.73	2.02	11.6	686.6	678.5	9.84	1.76	2.32	0.99	0.03	1.57



Stellar Parameters For KIC 011548140

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	3440^{+68}_{-75}	$4.820^{+0.044}_{-0.040}$	$0.460^{+0.050}_{-0.150}$	$0.439^{+0.035}_{-0.052}$	$0.465^{+0.032}_{-0.060}$	$7.721^{+2.043}_{-1.247}$
	+2%/-2%	+1%/-1%	+11%/-33%	+8%/-12%	+7%/-13%	+26%/-16%
Source	SPE70	SPE5	SPE70	DSEP		

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

Secondary Eclipse Parameters for KIC 011548140-01 / KOI 0256.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-303 ± 28	$1.99^{+1.09}_{-0.99}$	1024^{+27}_{-29}	2671^{+564}_{-275}	15^{+44}_{-9}
Alt.	-803 ± 31	$7.00^{+1.08}_{-1.07}$	1022^{+28}_{-25}	2203^{+101}_{-78}	$3.142^{+1.262}_{-0.760}$

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 $A_{\text{obs}} \gg 1.0$

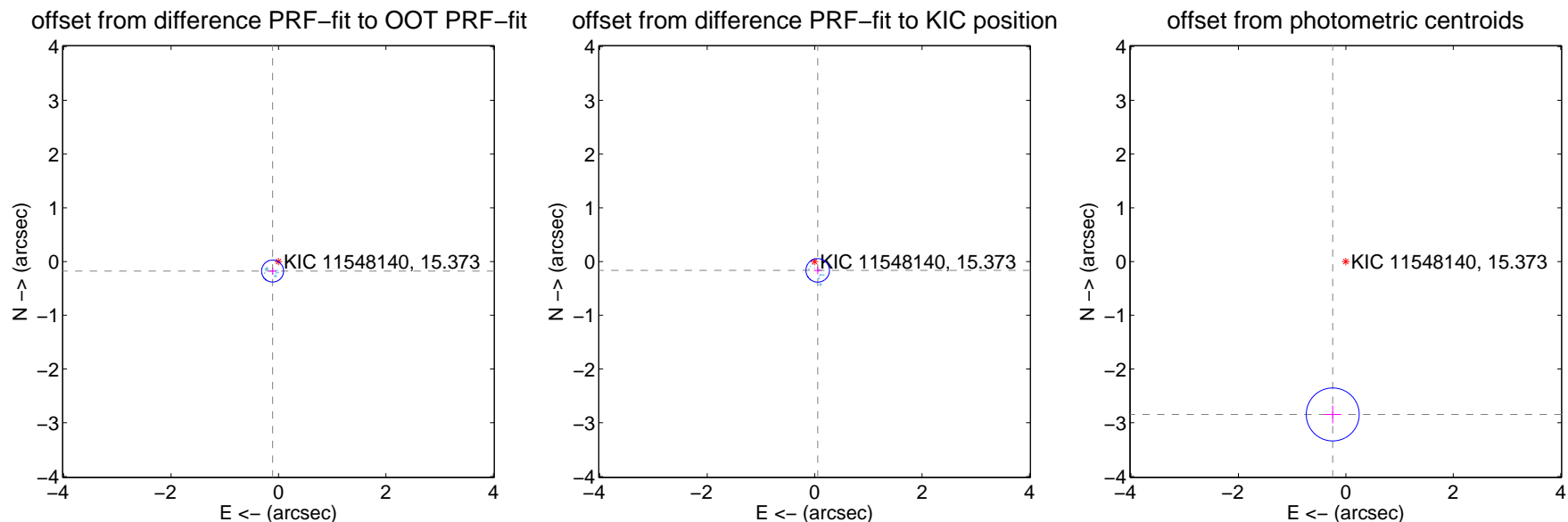
DV Centroid Data

Supplemental centroid analysis for 011548140-01. Kepler magnitude: 15.37. Transit SNR 30.76

There are 14 quarters with good PRF difference image offsets

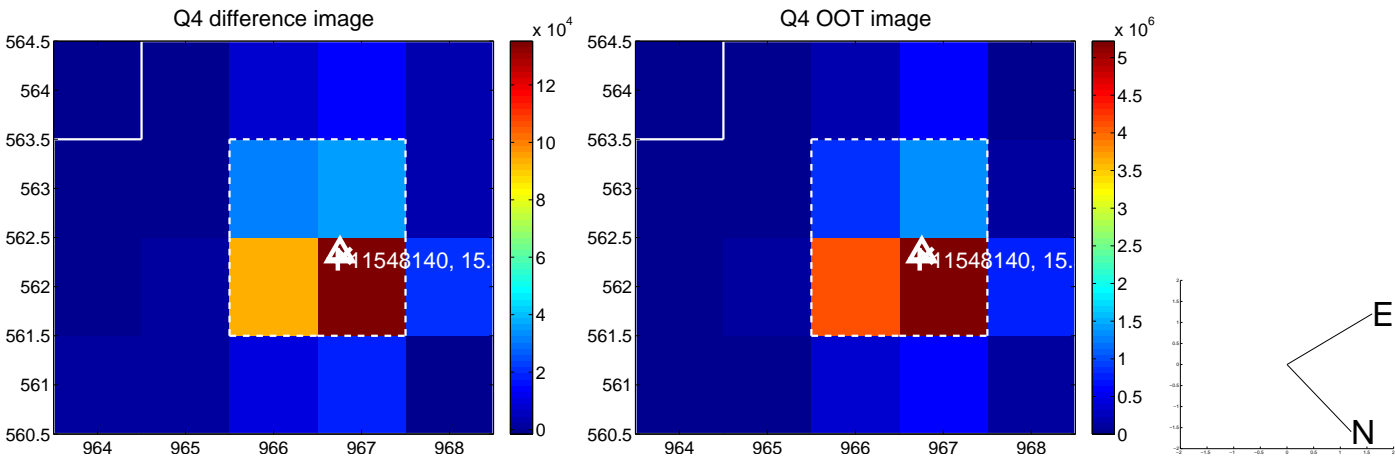
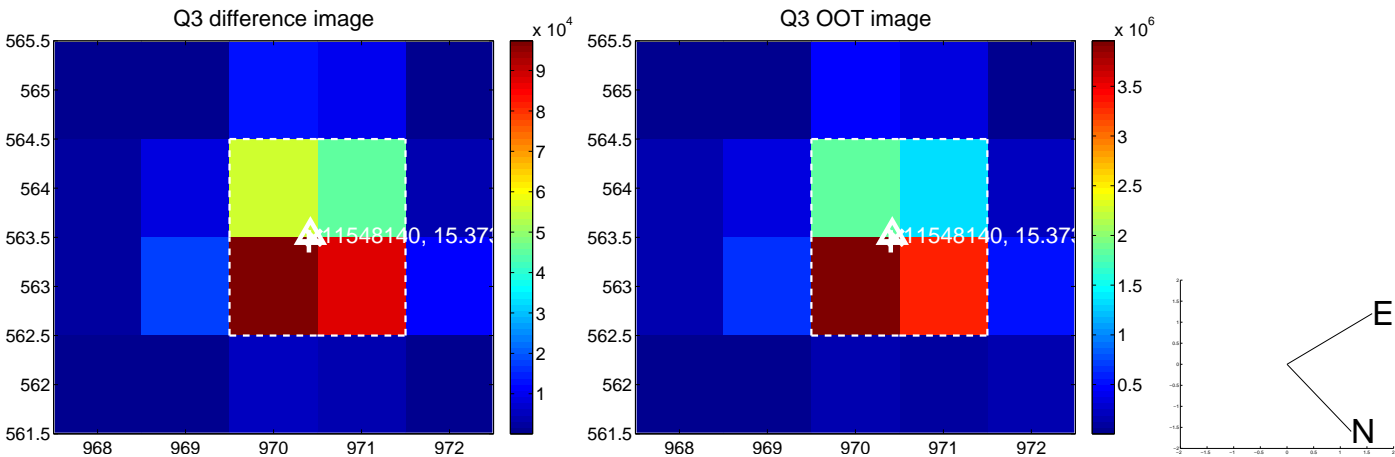
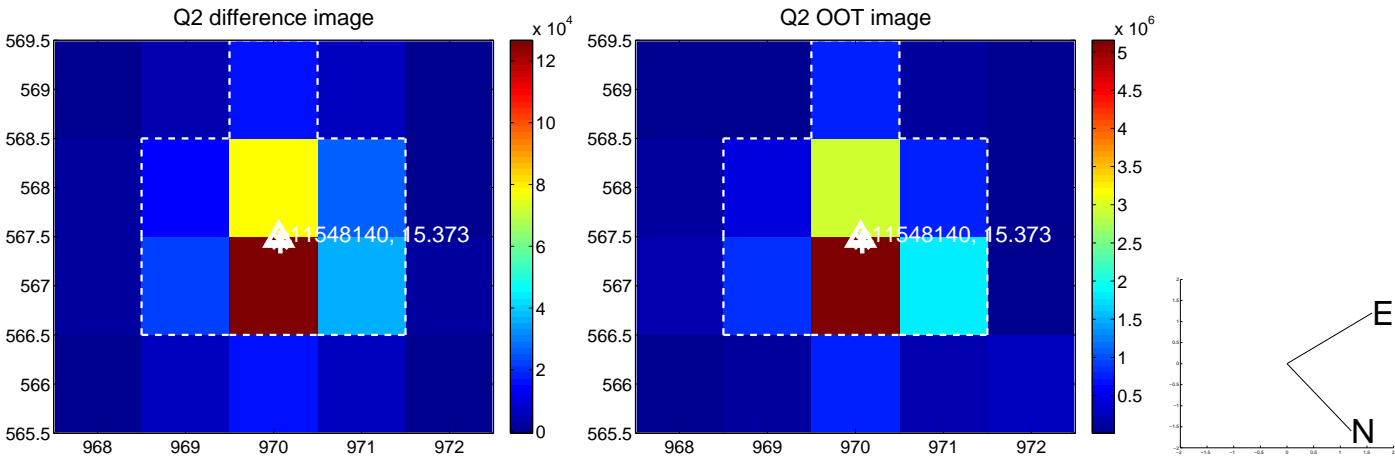
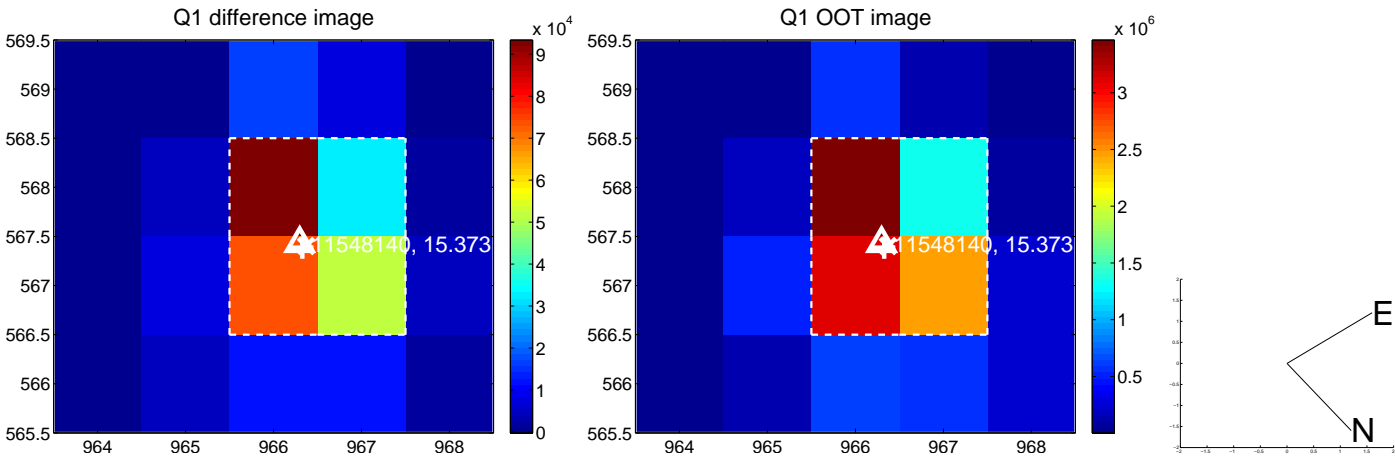
The direct PRF centroid is offset from the target star catalog position by about 0.23 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.208 ± 0.068	3.06	0.110 ± 0.071	-0.177 ± 0.067
PRF-fit source offset from KIC position	0.174 ± 0.073	2.39	-0.057 ± 0.071	-0.165 ± 0.072
photometric centroid source offset	2.86 ± 0.16	17.38	0.24 ± 0.15	-2.85 ± 0.16

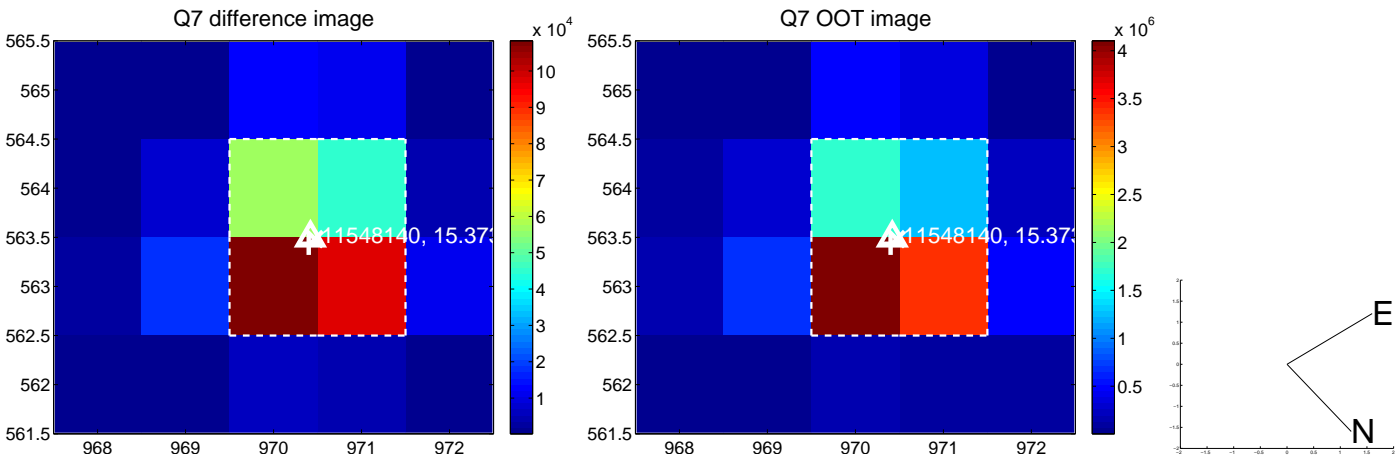
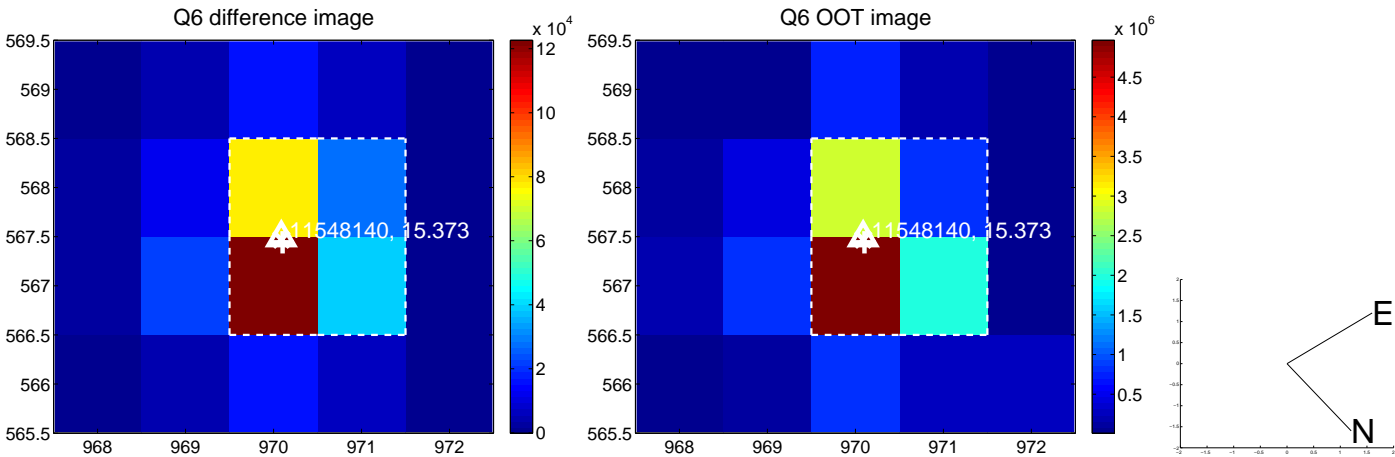
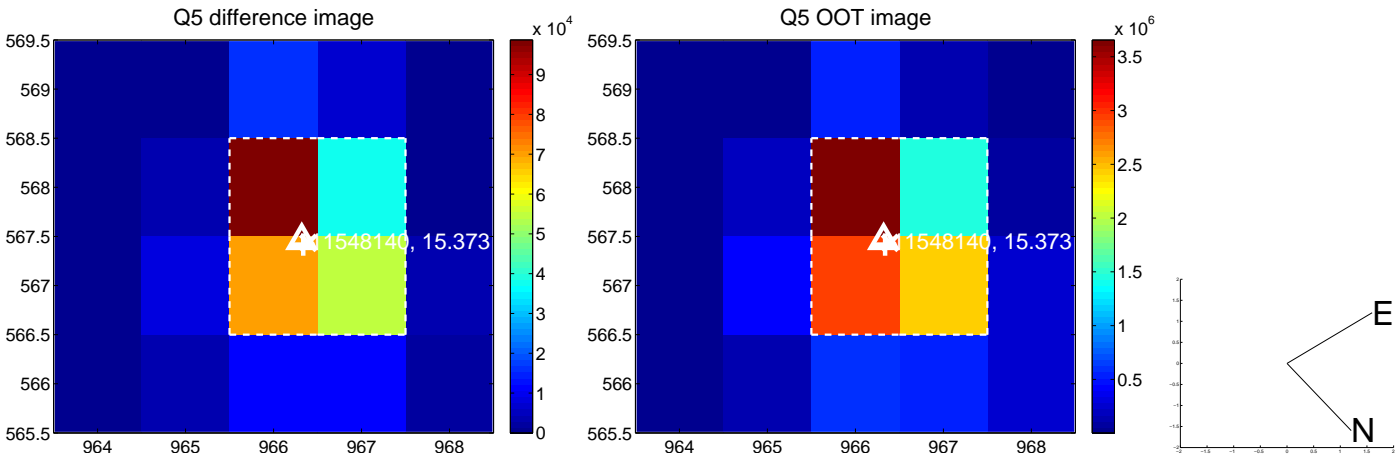


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

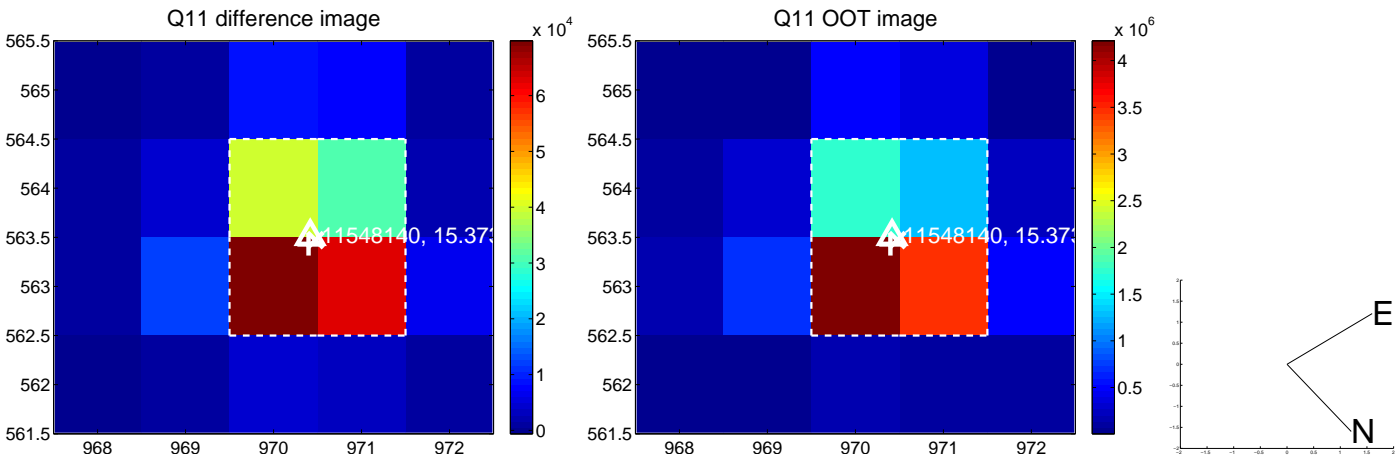
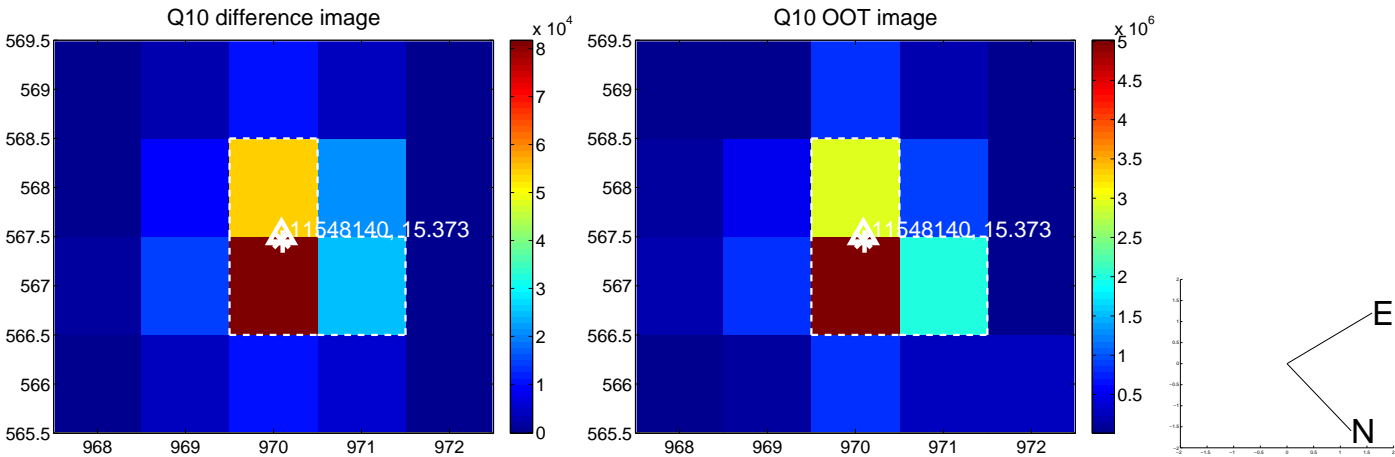
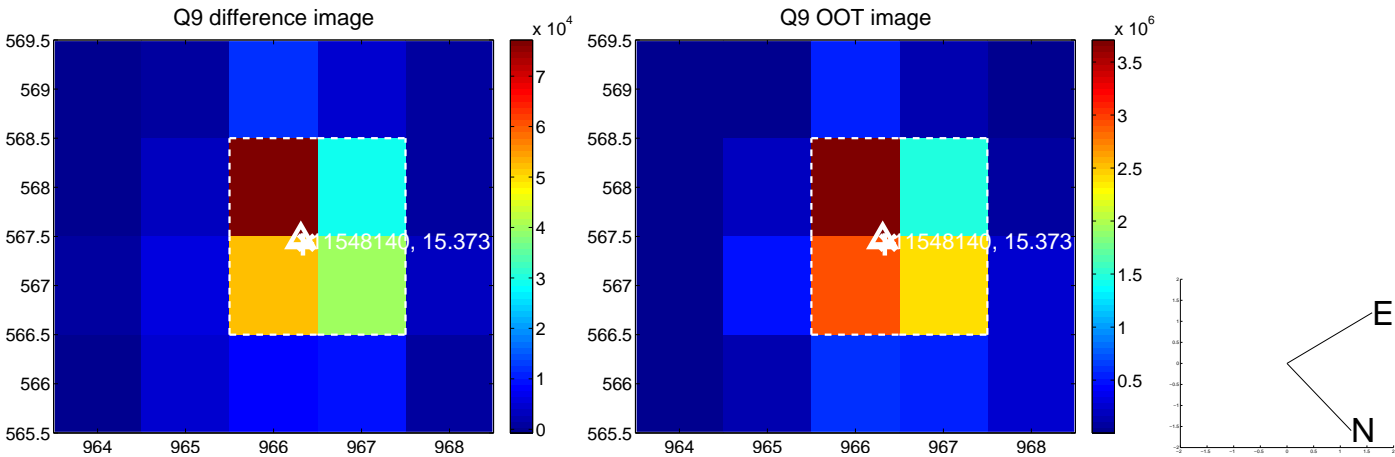
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



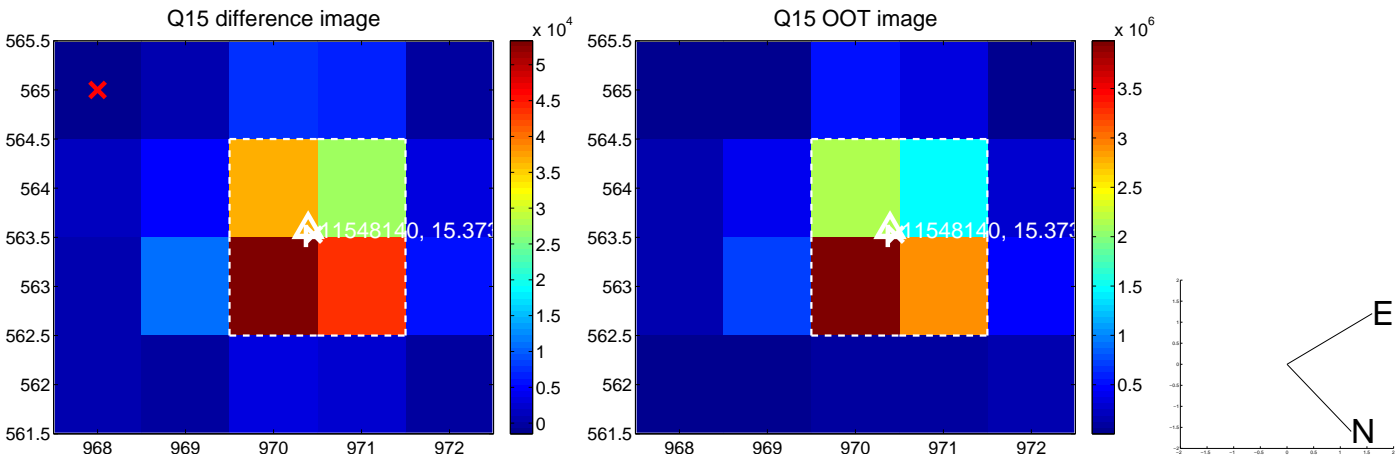
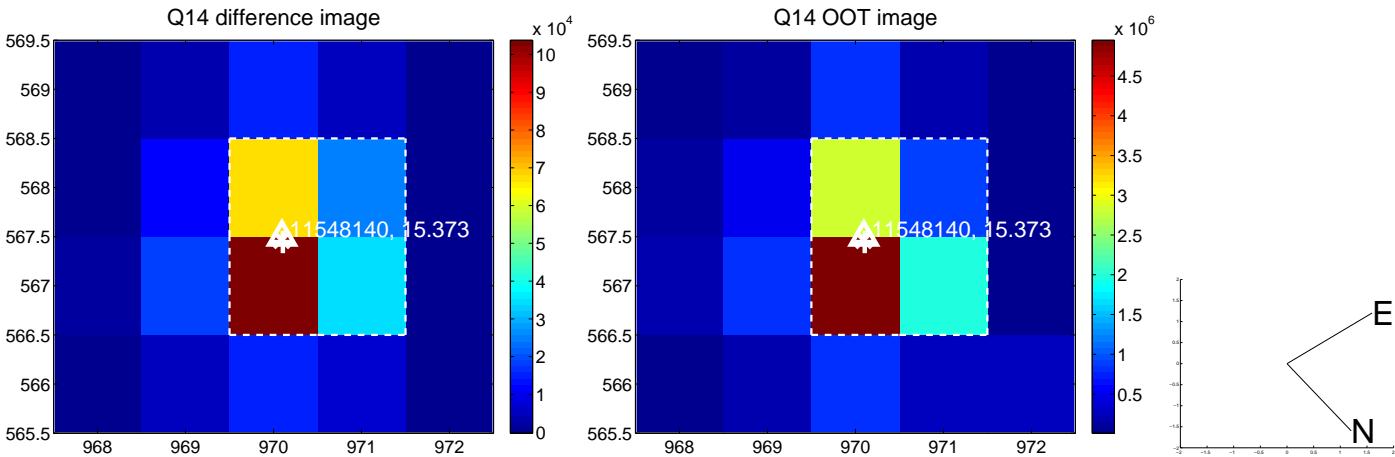
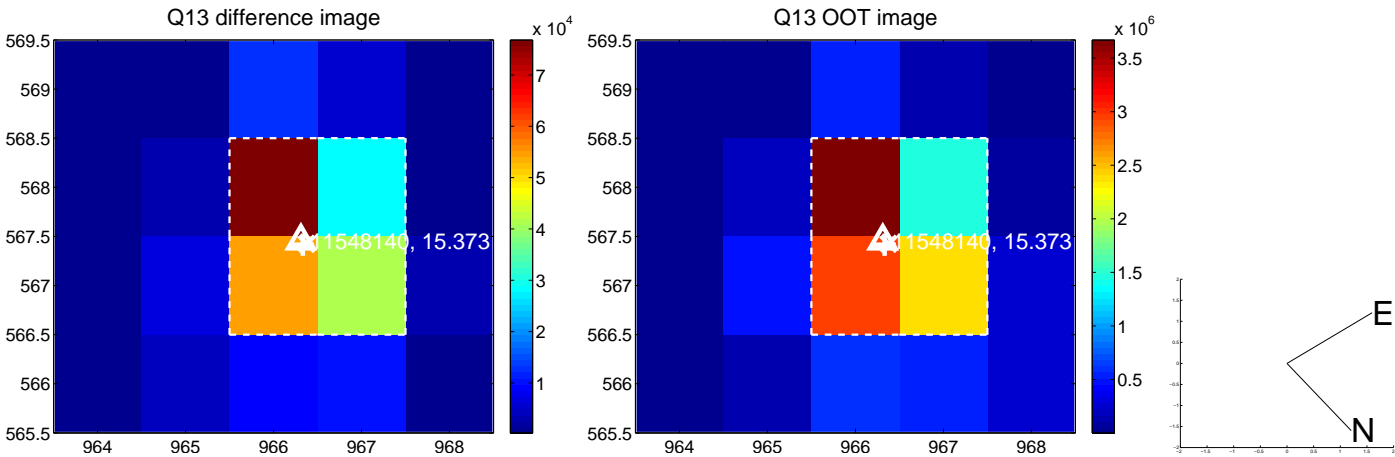
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



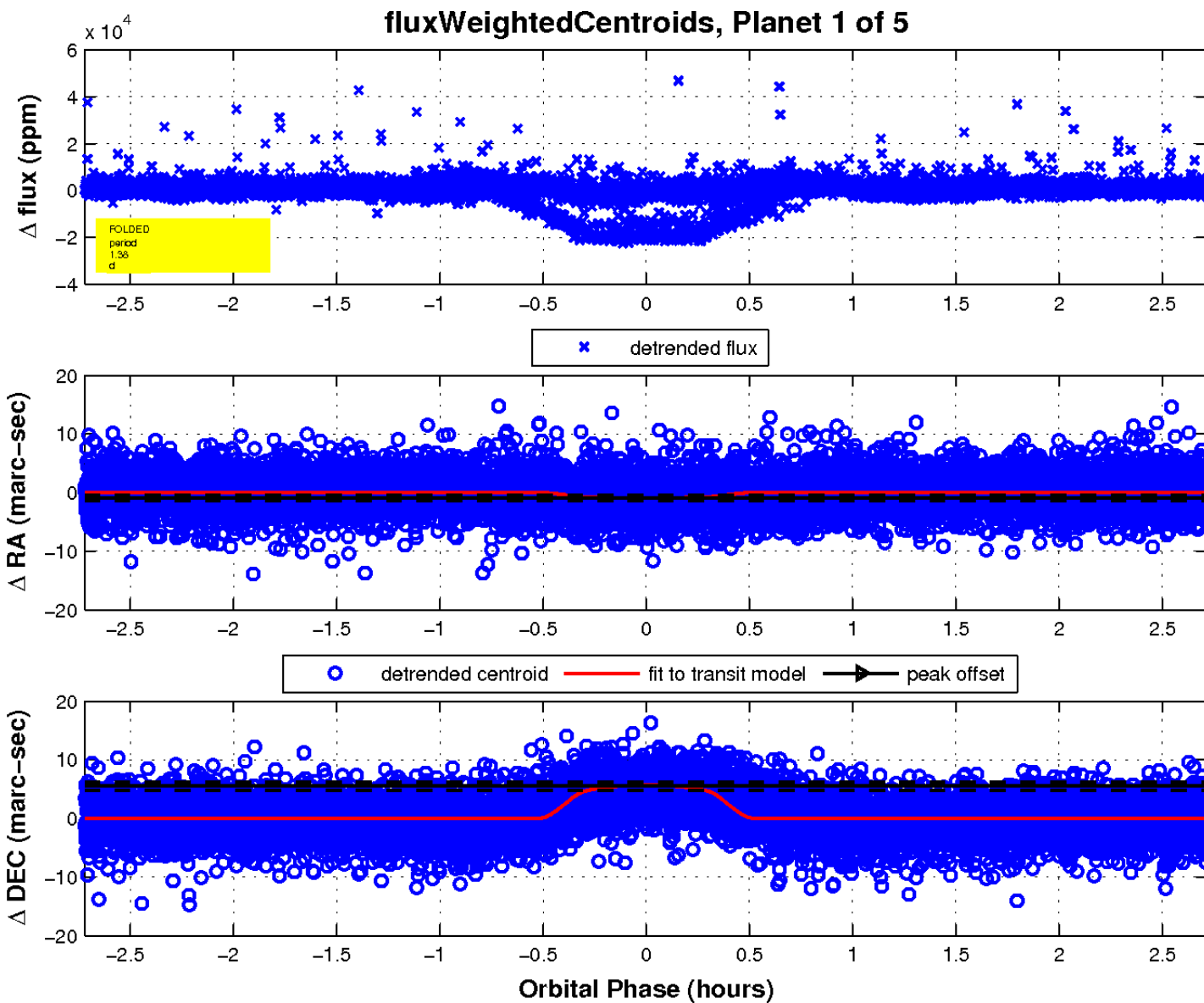
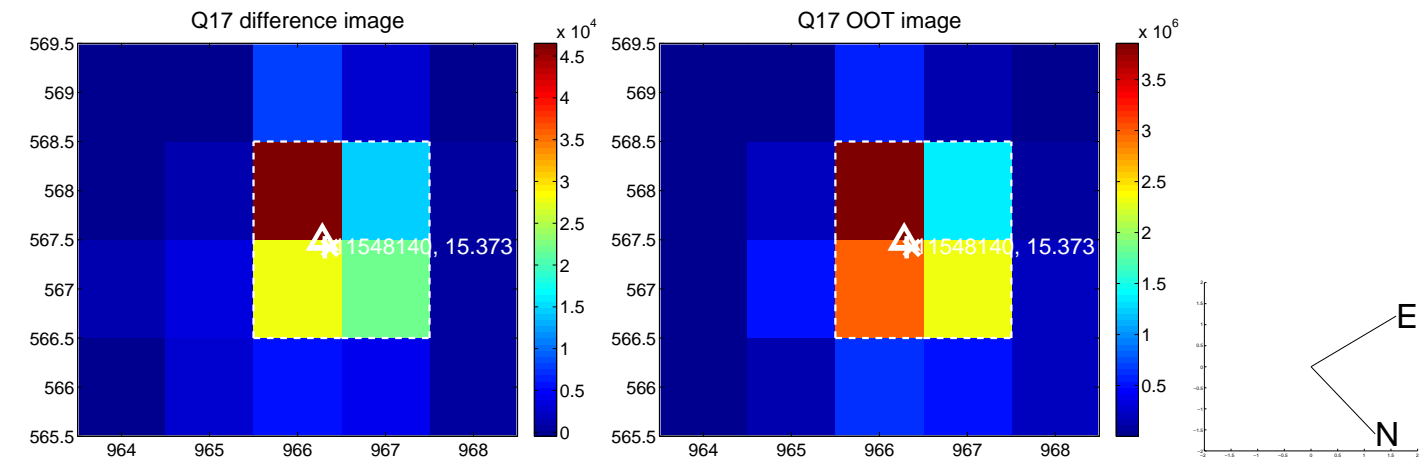
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

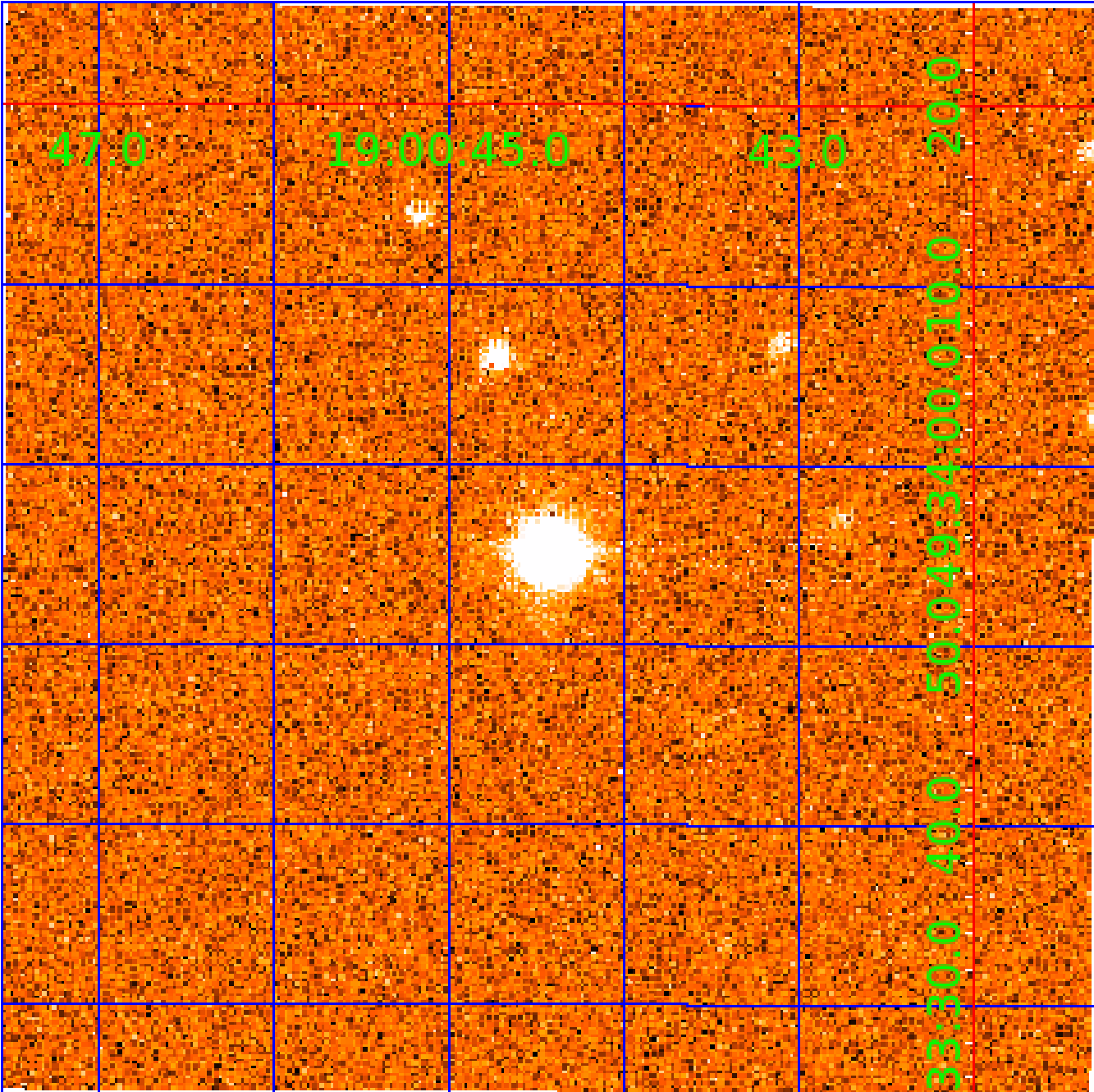


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011548140

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})
011548140-01	OBS	0256.01	1.378635	132.561387	1769.2	0.907	110.8	30.8	0.44	3440	2.03	68.58
011548140-02	OBS	No	1.375607	132.570133	1410.5	5.000	11.5	-1.0	0.44	3440	1.60	68.78
011548140-03	OBS	No	4.139812	132.171679	1210.8	3.500	8.8	-1.0	0.44	3440	1.49	15.83
011548140-04	OBS	No	119.622896	170.927926	2425.9	9.059	8.4	5.7	0.44	3440	2.13	0.18
011548140-05	OBS	No	146.834095	200.640362	4557.5	3.243	9.7	7.2	0.44	3440	2.89	0.14

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011548140-01	OBS	FP	0.00	0	1	0	0	SWEET_EB
011548140-02	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_NOFITS
011548140-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_NOFITS
011548140-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
011548140-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—HALO_GHOST

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 011548140-02

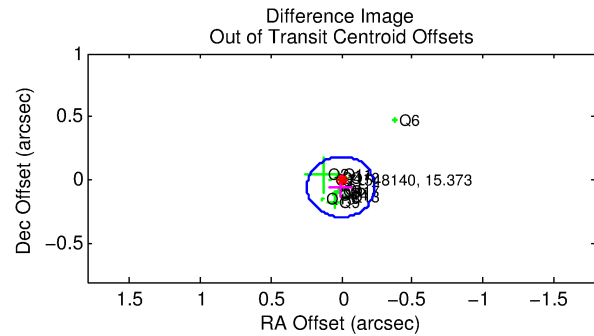
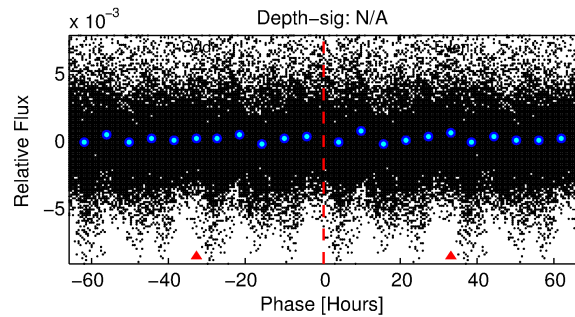
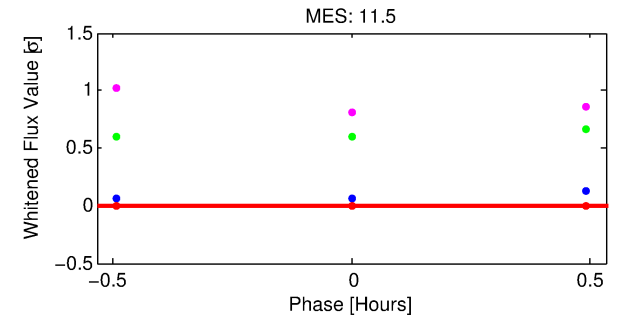
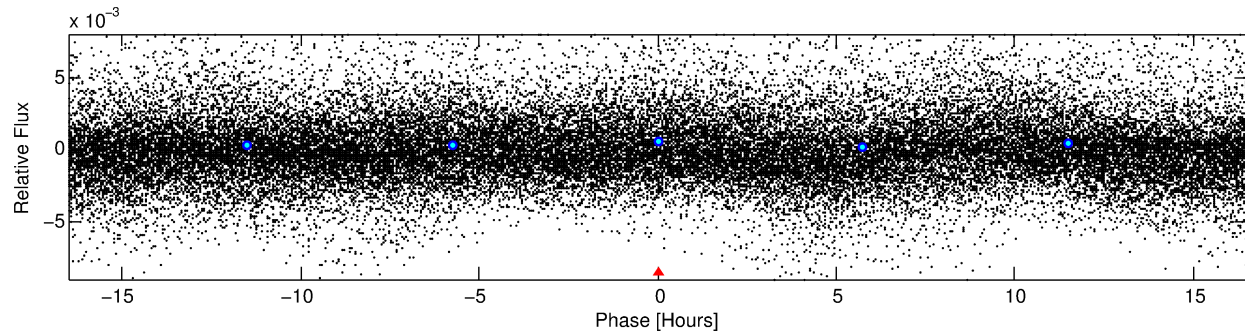
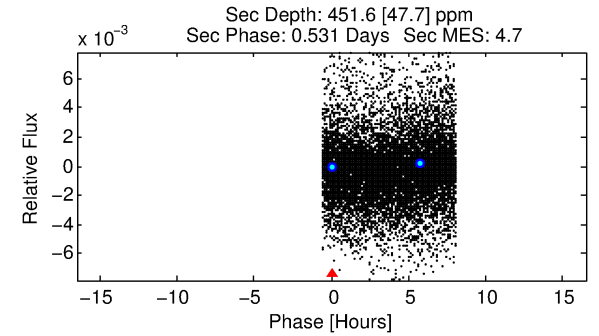
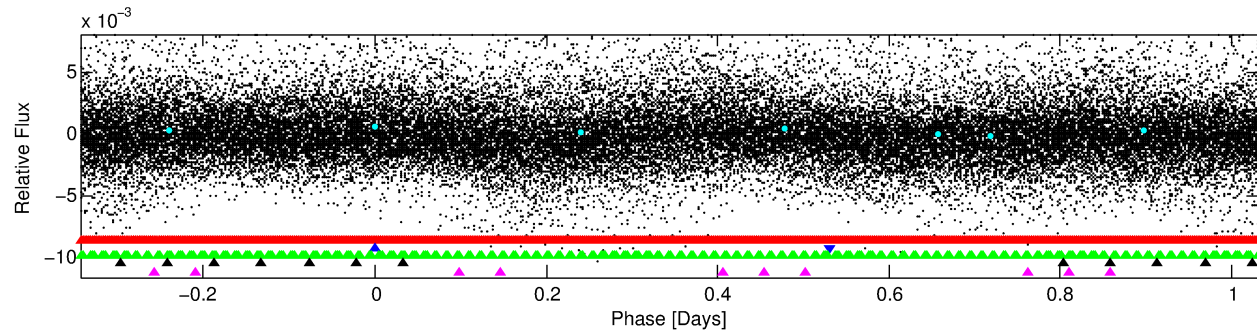
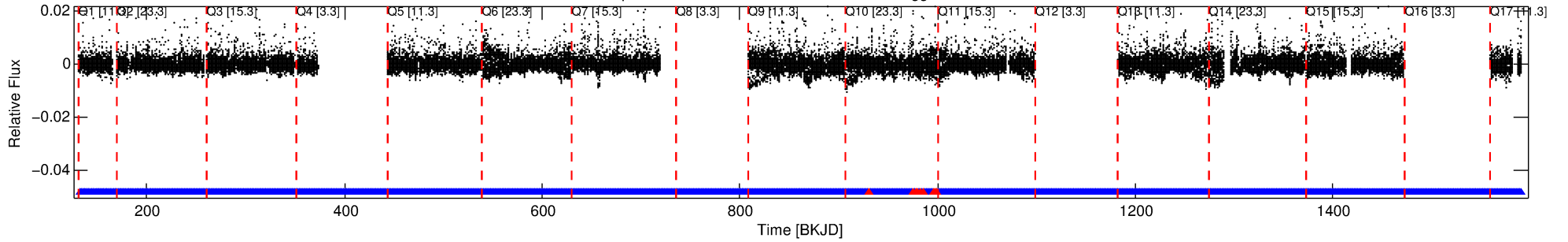
No Significant Match Found

DV One-Page Summary

KIC: 11548140 Candidate: 2 of 5 Period: 1.376 d

KOI: K00256 Corr: No Ephemeris Match

Kp: 15.37 R*: 0.44 Rs Teff: 3440.0 K Logg: 4.82 Fe/H: 0.460



TPS TCE Results:

Period = 1.37561 d
Epoch = 132.5701 BKJD

DV fit results are unavailable

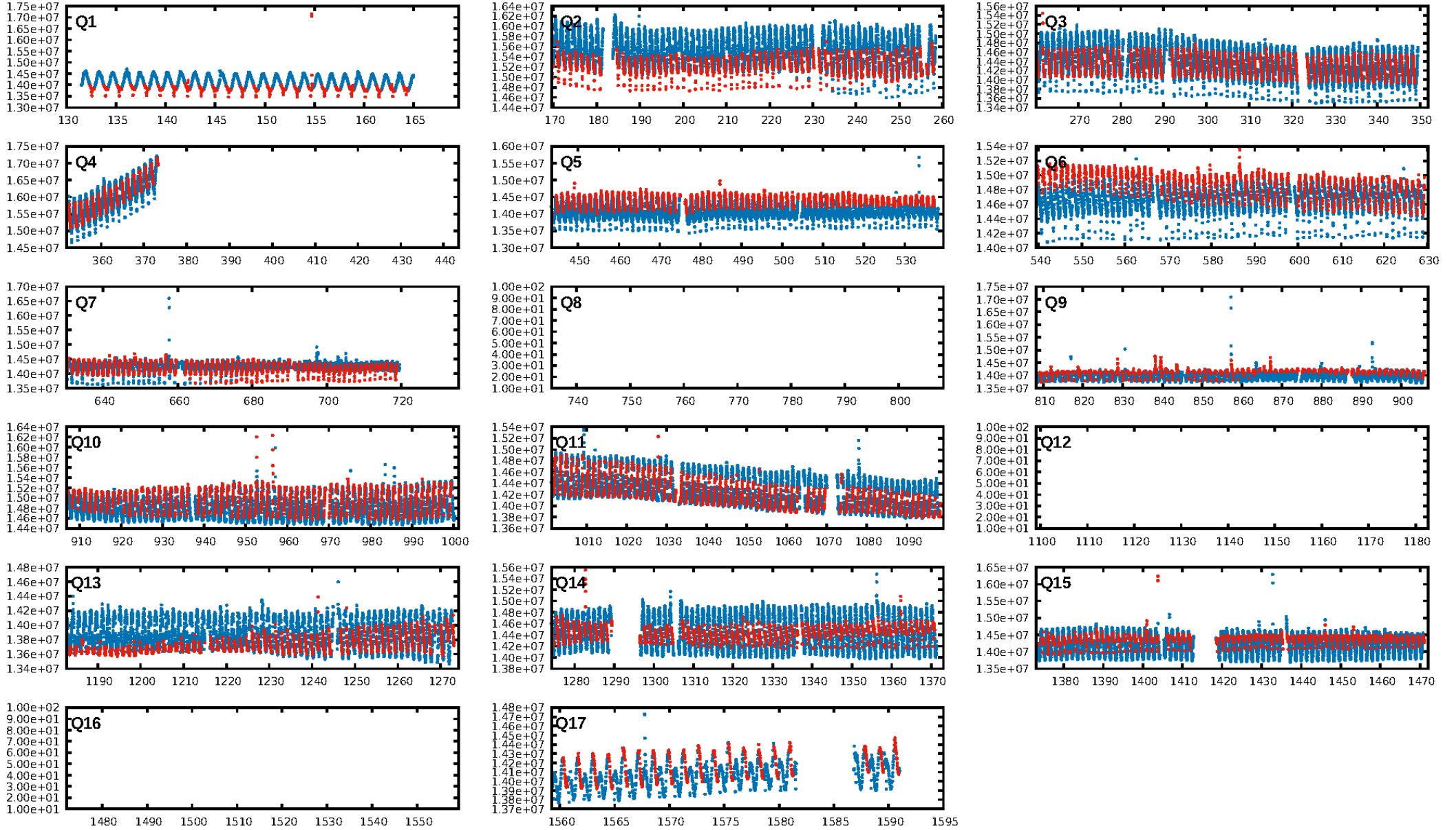
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 1.1% [0.01σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 3.28e-22
RollingBand-fgt: 0.99 [696/705]
GhostDiagnostic-chr: 0.764
Centroid-sig: 0.0%
Centroid-so: 0.579 arcsec [7.16σ]
OotOffset-rm: 0.051 arcsec [0.64σ]
KicOffset-rm: 0.260 arcsec [3.56σ]
OotOffset-st: 4/4/1/5 [14]
KicOffset-st: 4/4/1/5 [14]
DiffImageQuality-fgm: 0.50 [7/14]
DiffImageOverlap-fno: 0.57 [8/14]

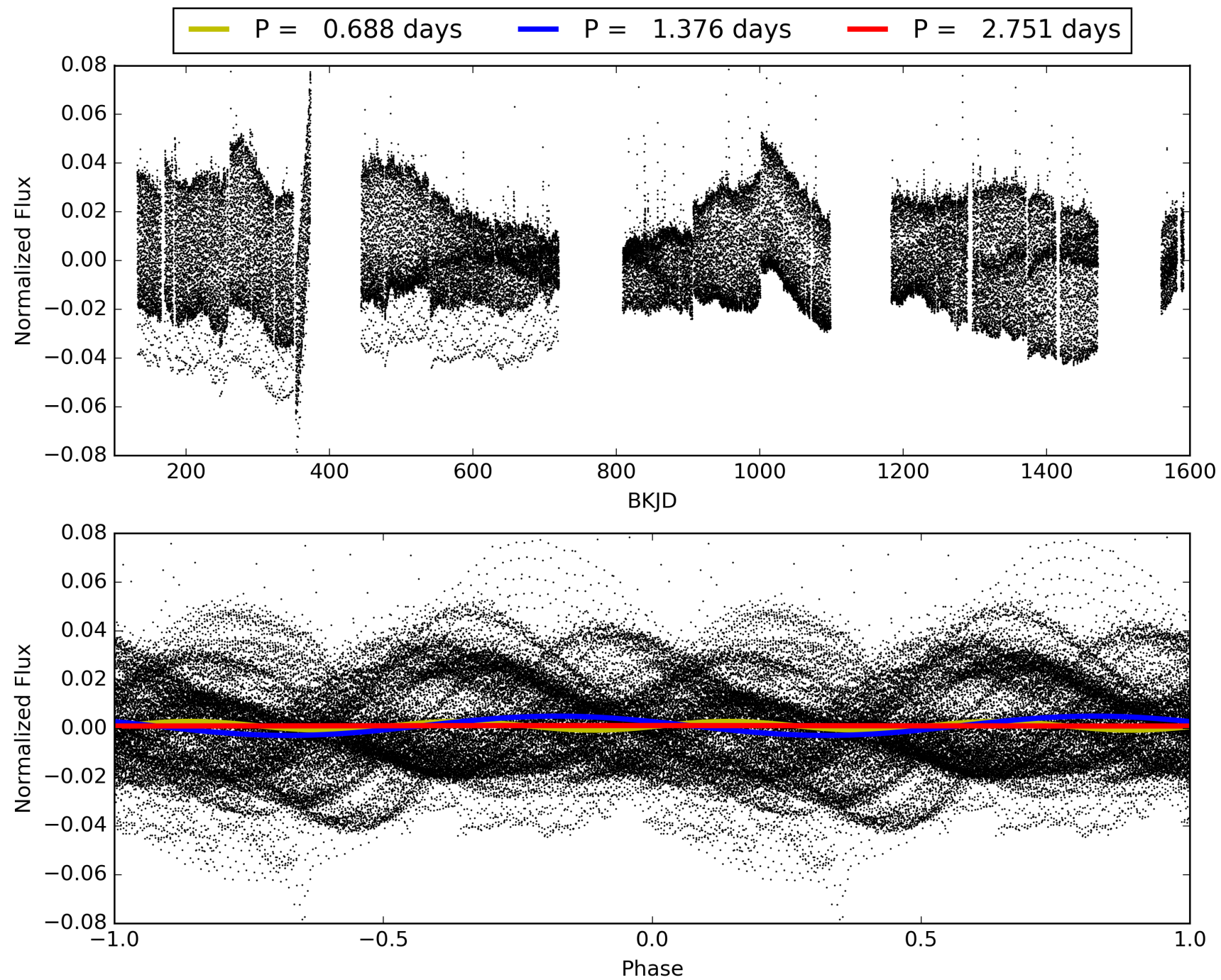
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:38:03 Z

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

TCE 011548140-02, PDC Light Curves

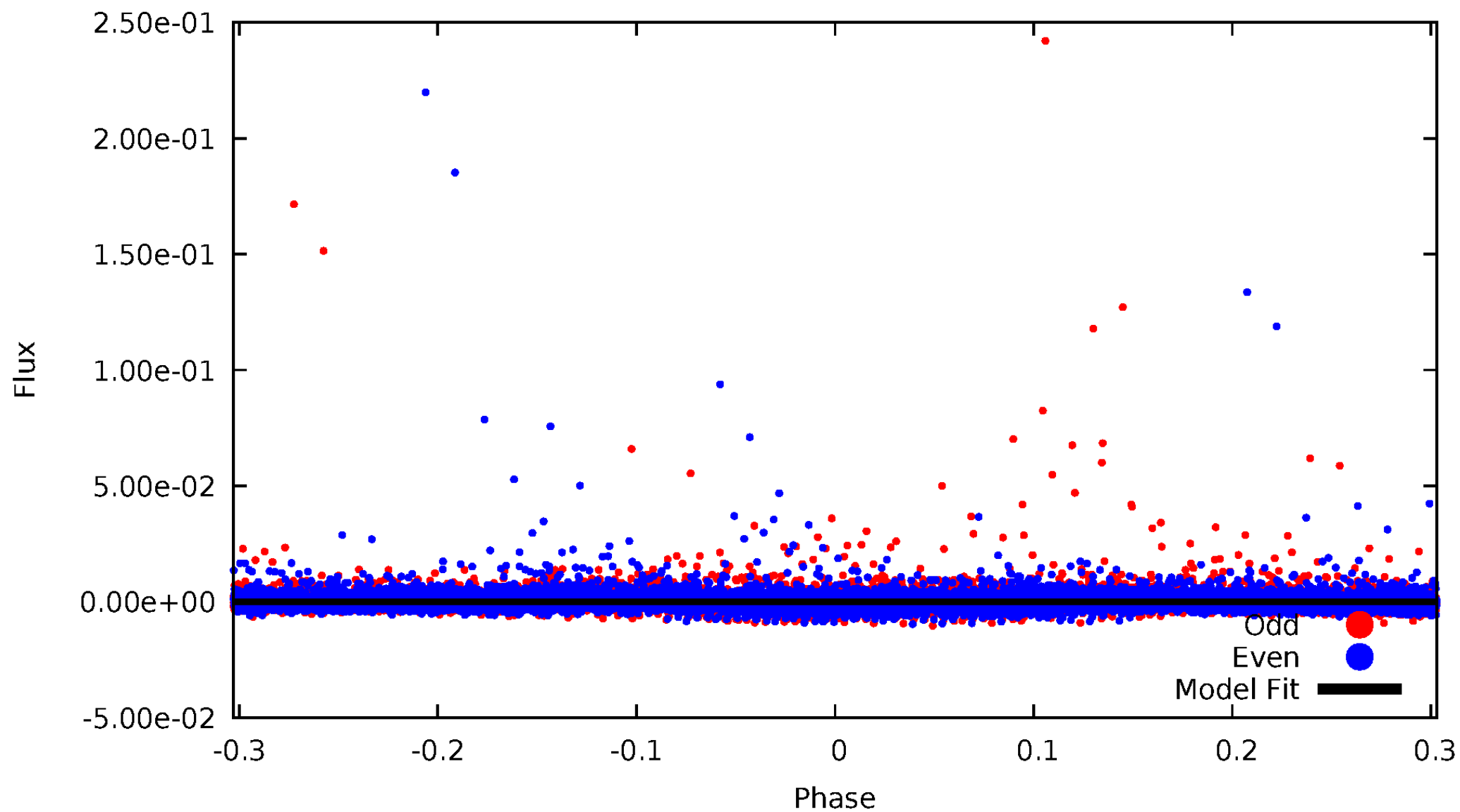


TCE 011548140-02



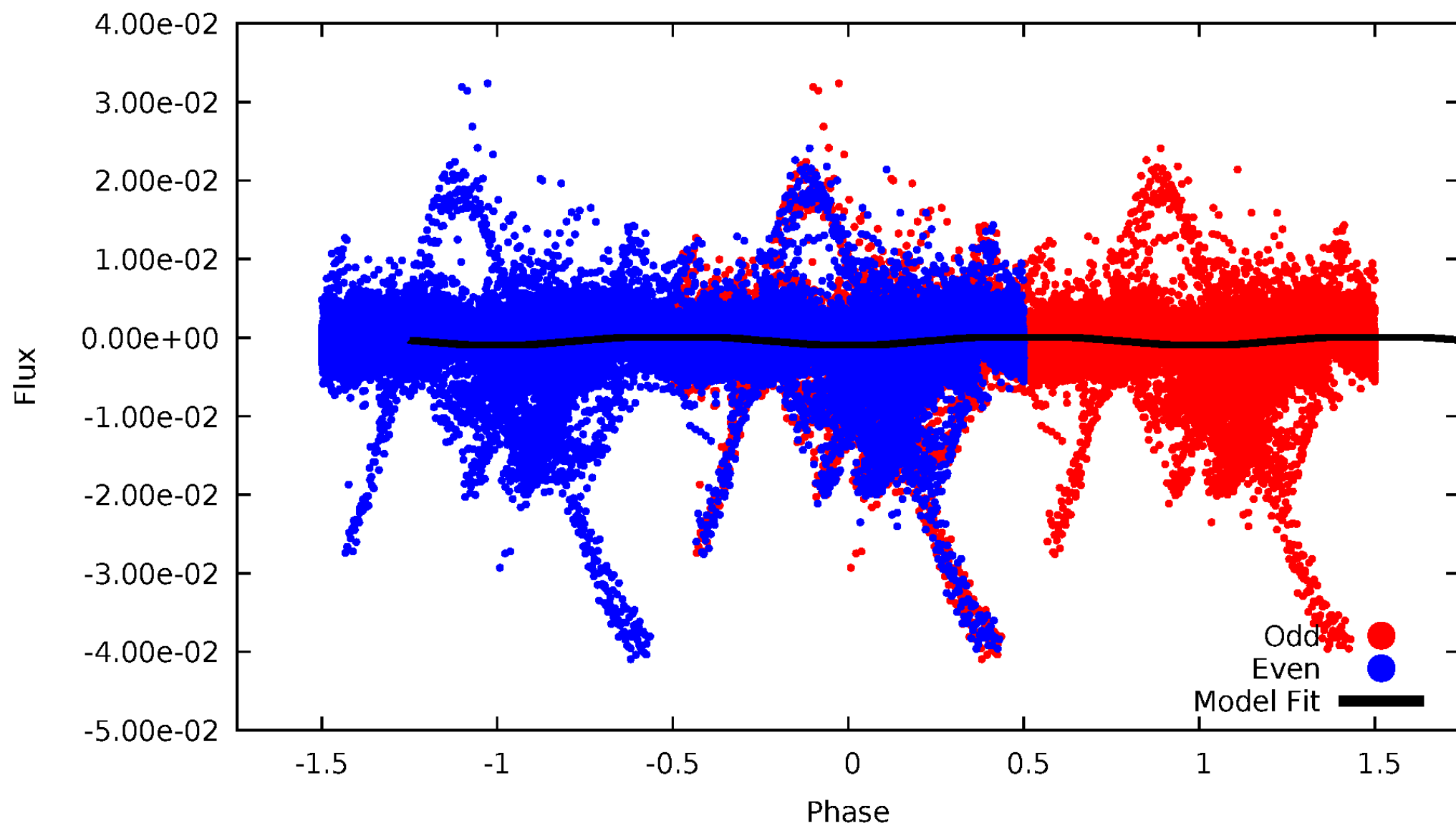
DV Odd/Even

TCE 011548140-02



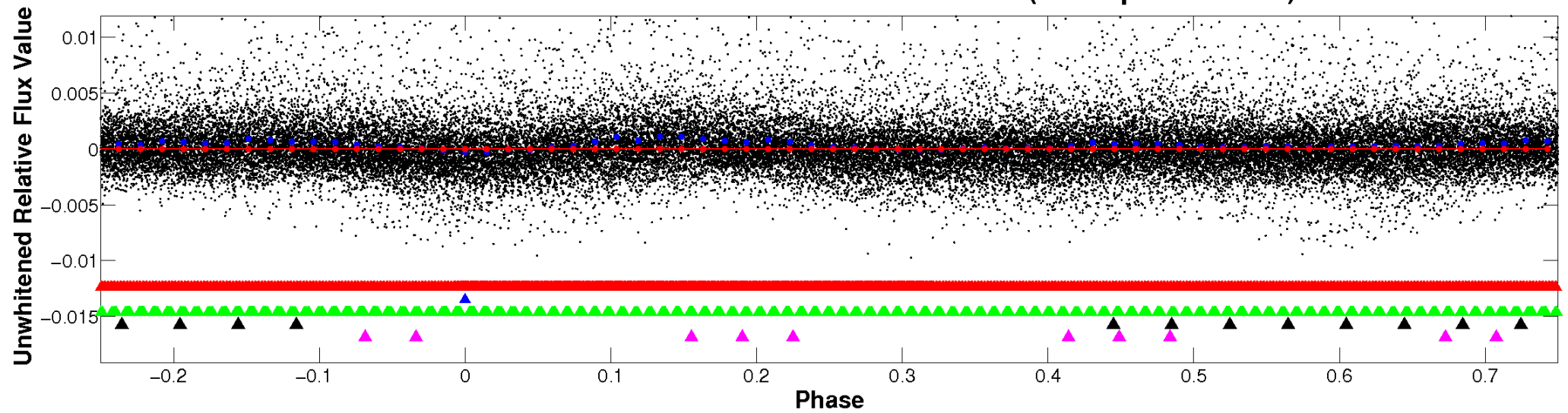
ALT Odd/Even

TCE 011548140-02

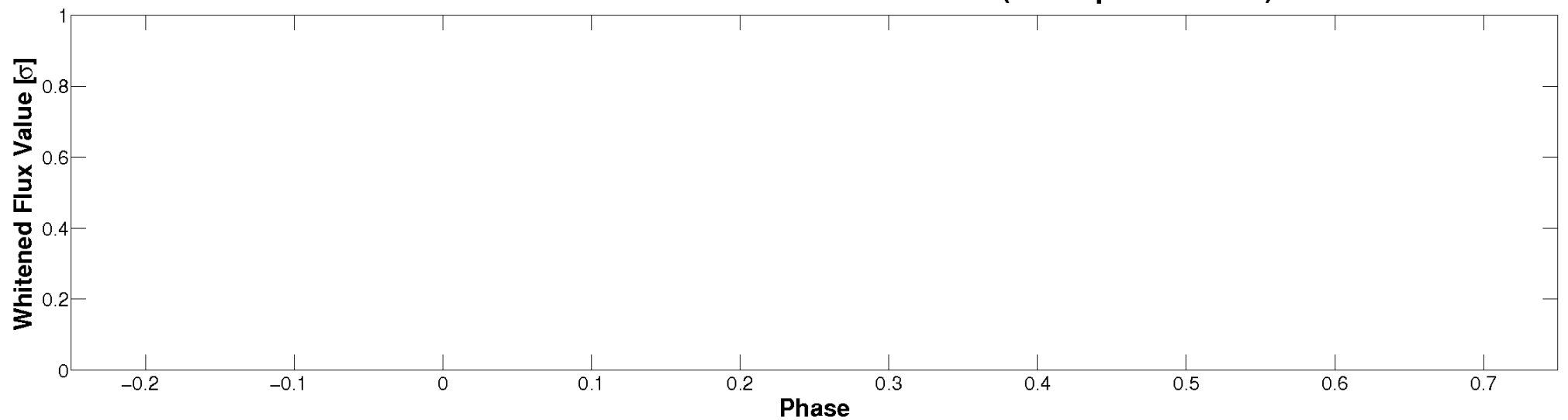


Non-Whitened Vs. Whitened Light Curve

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

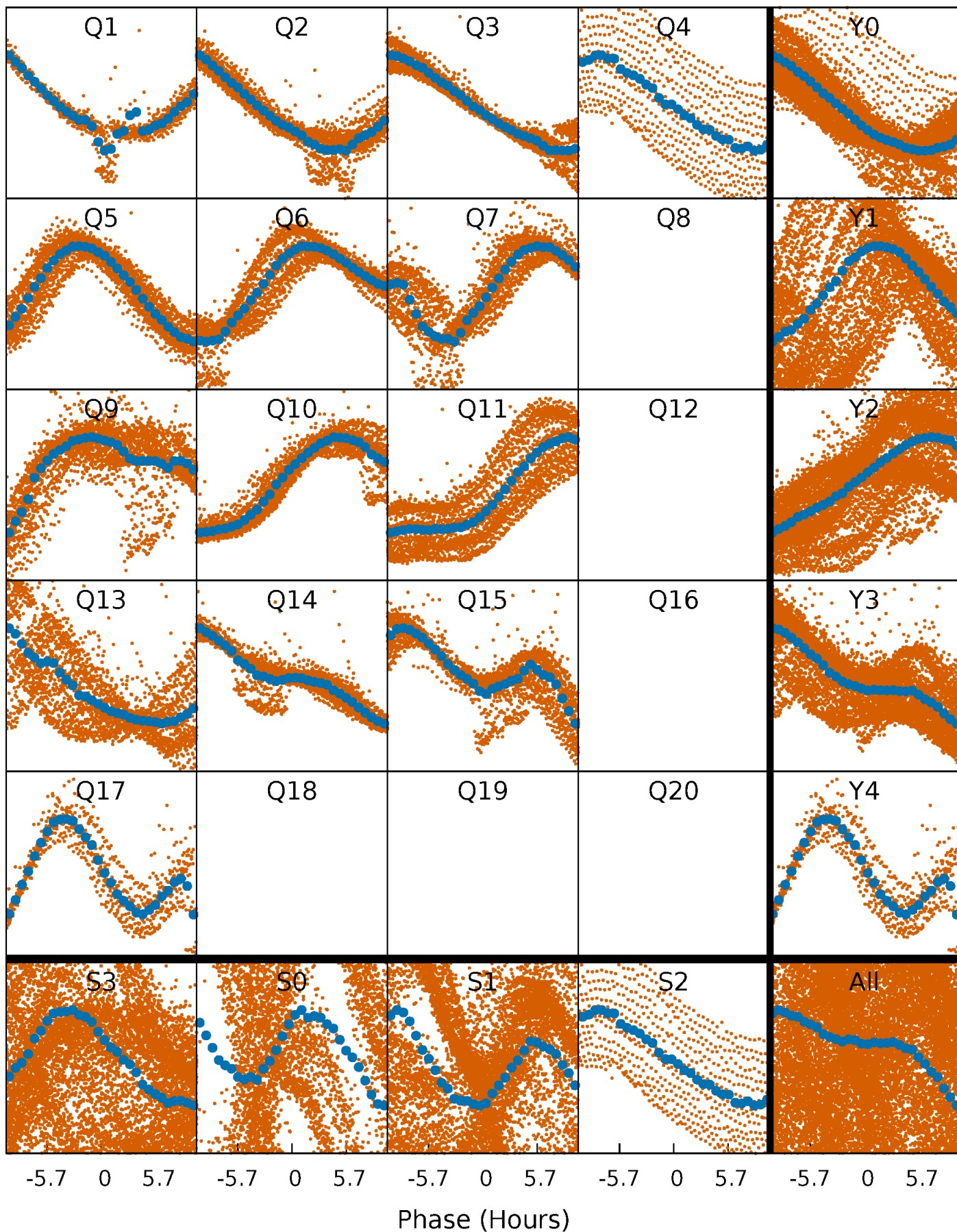


Planet 2 : Phased Whitened Flux Time Series (TPS Epoch/Period)



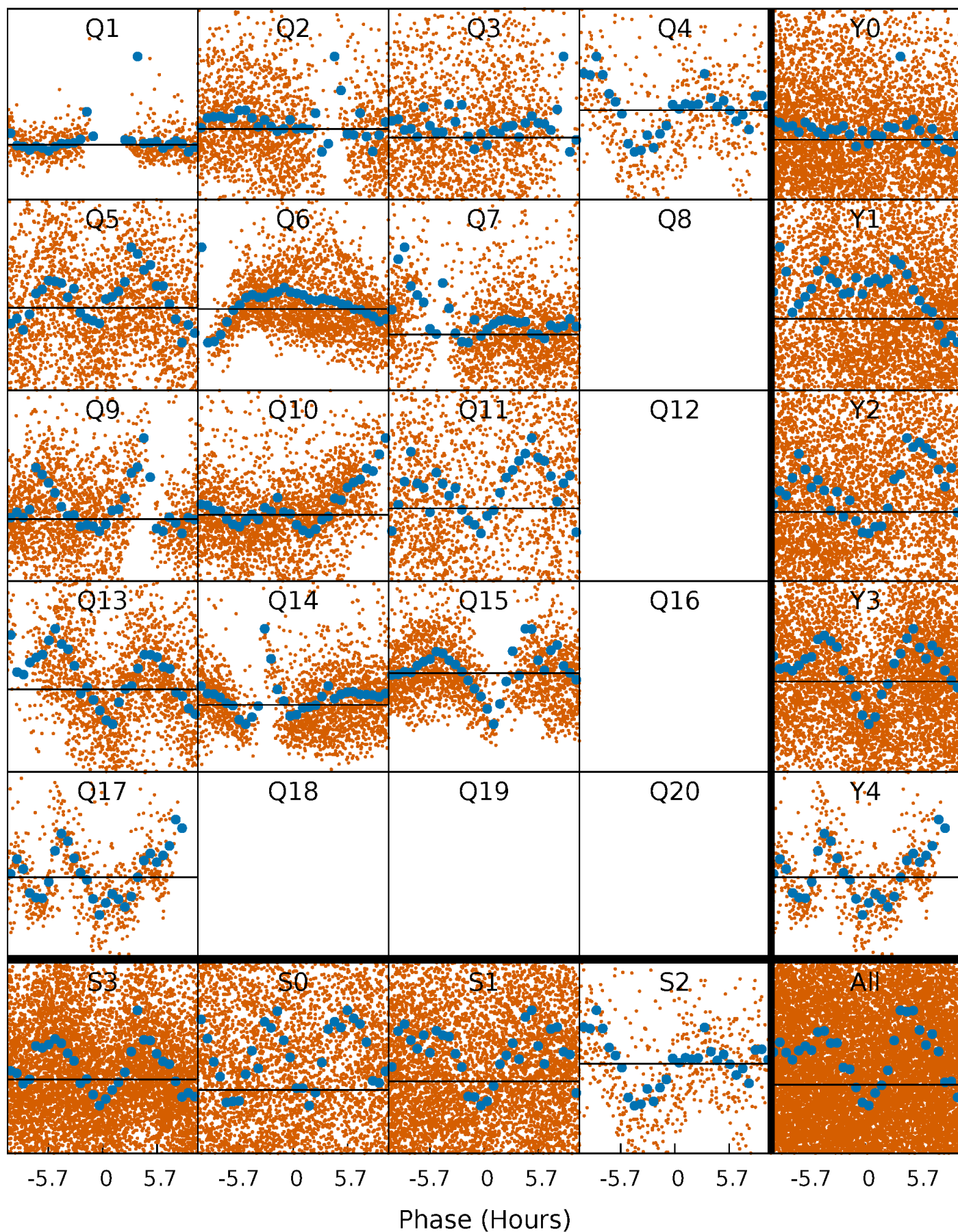
PDC Quarter-Phased Transit Curves

TCE 011548140-02 P= 1.375607 Days $T_0=132.570133$ (BKJD)



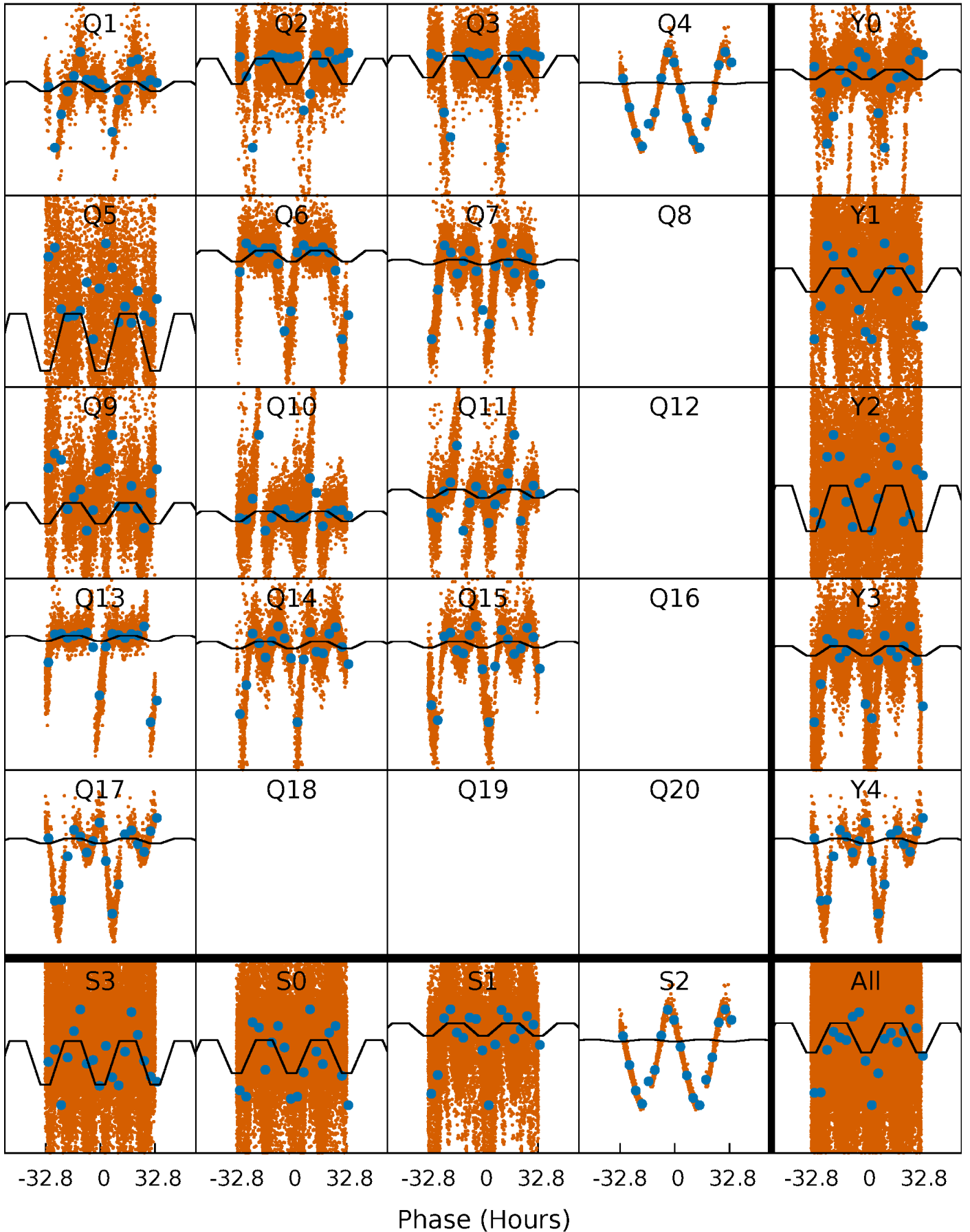
DV Quarter-Phased Transit Curves

TCE 011548140-02 P= 1.375607 Days $T_0=132.570133$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

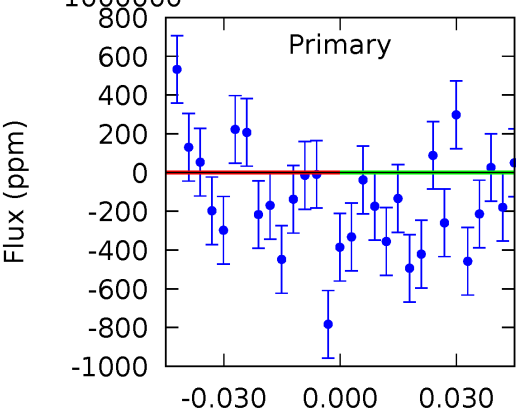
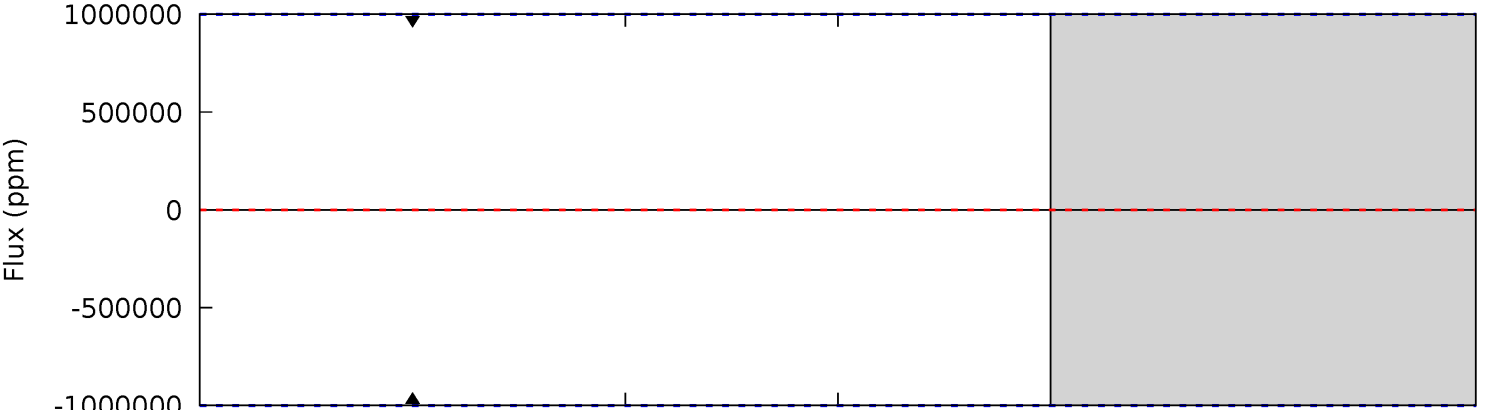
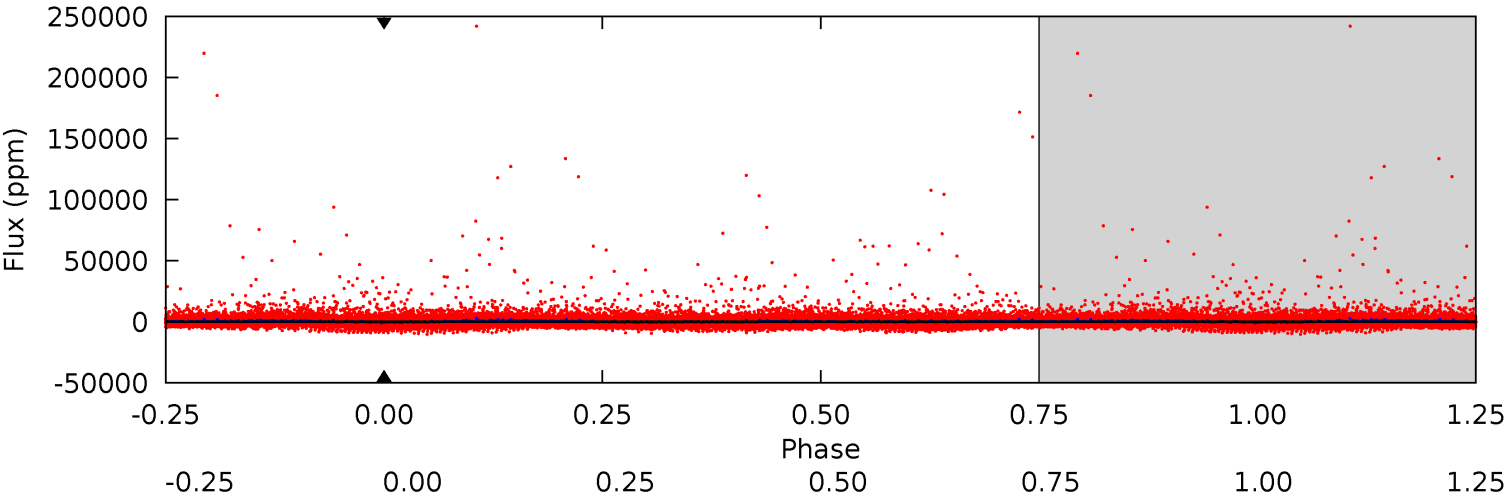
TCE 011548140-02 $P = 1.375607$ Days $T_0 = 132.378424$ (BKJD)



DV Model-Shift Uniqueness Test

011548140-02, P = 1.375607 Days, E = 131.194526 Days

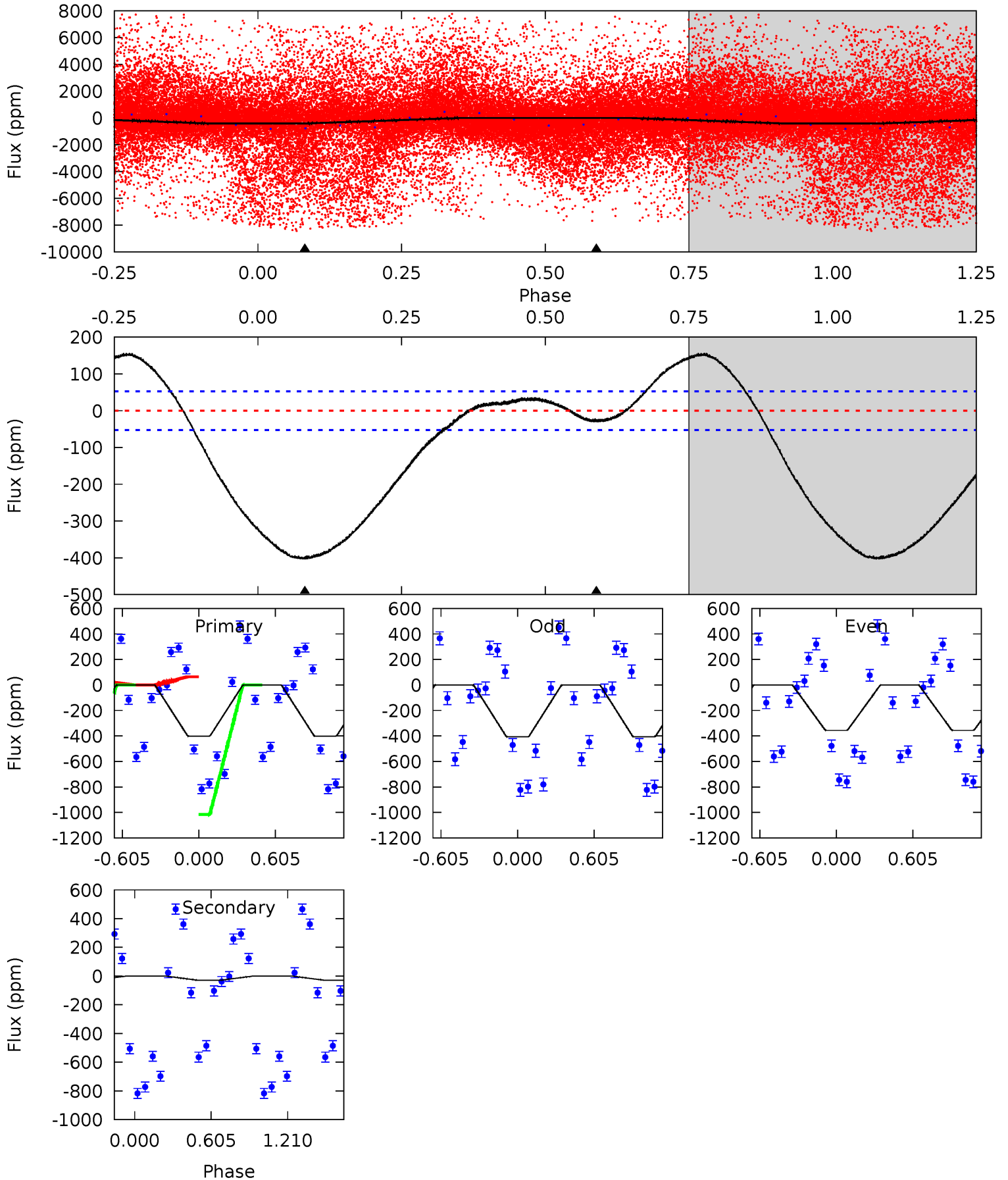
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

011548140-02, P = 1.375607 Days, E = 131.002817 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
31.9	2.34	0	0	4.17	0.52	2.12	31.9	31.9	2.34	2.34	2.05	1.96	0.28	30.1



Stellar Parameters For KIC 011548140

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	3440^{+68}_{-75}	$4.820^{+0.044}_{-0.040}$	$0.460^{+0.050}_{-0.150}$	$0.439^{+0.035}_{-0.052}$	$0.465^{+0.032}_{-0.060}$	$7.721^{+2.043}_{-1.247}$
	+2%/-2%	+1%/-1%	+11%/-33%	+8%/-12%	+7%/-13%	+26%/-16%
Source	SPE70	SPE5	SPE70	DSEP		

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

Secondary Eclipse Parameters for KIC 011548140-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$3.91^{+3.66}_{-2.68}$	1025^{+27}_{-30}	-2684^{+9448}_{-3657}	$-14.741^{+2303.898}_{-1929.395}$
Alt.	-29 ± 13	$3.82^{+4.19}_{-2.72}$	1029^{+25}_{-32}	1487^{+808}_{-3202}	$0.343^{+4.003}_{-0.269}$

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

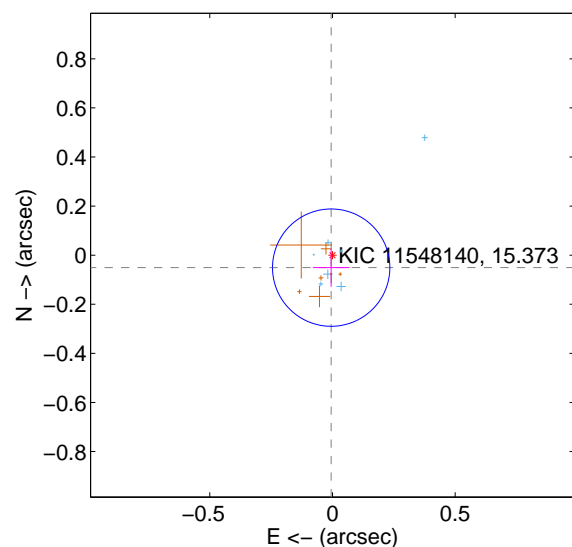
Supplemental centroid analysis for 011548140-02. Kepler magnitude: 15.37. Transit SNR -1.00

There are 7 quarters with good PRF difference image offsets

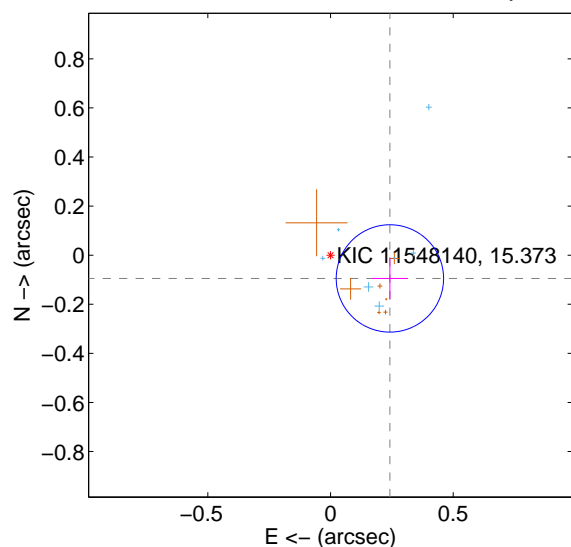
The direct PRF centroid is offset from the target star catalog position by about 0.23 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.051 ± 0.080	0.64	0.005 ± 0.075	-0.051 ± 0.078
PRF-fit source offset from KIC position	0.260 ± 0.073	3.56	-0.242 ± 0.073	-0.095 ± 0.086
photometric centroid source offset	0.58 ± 0.08	7.16	-0.23 ± 0.07	0.53 ± 0.08

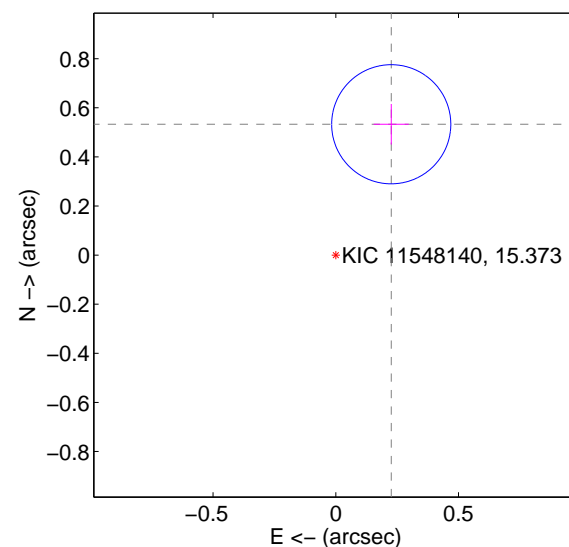
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

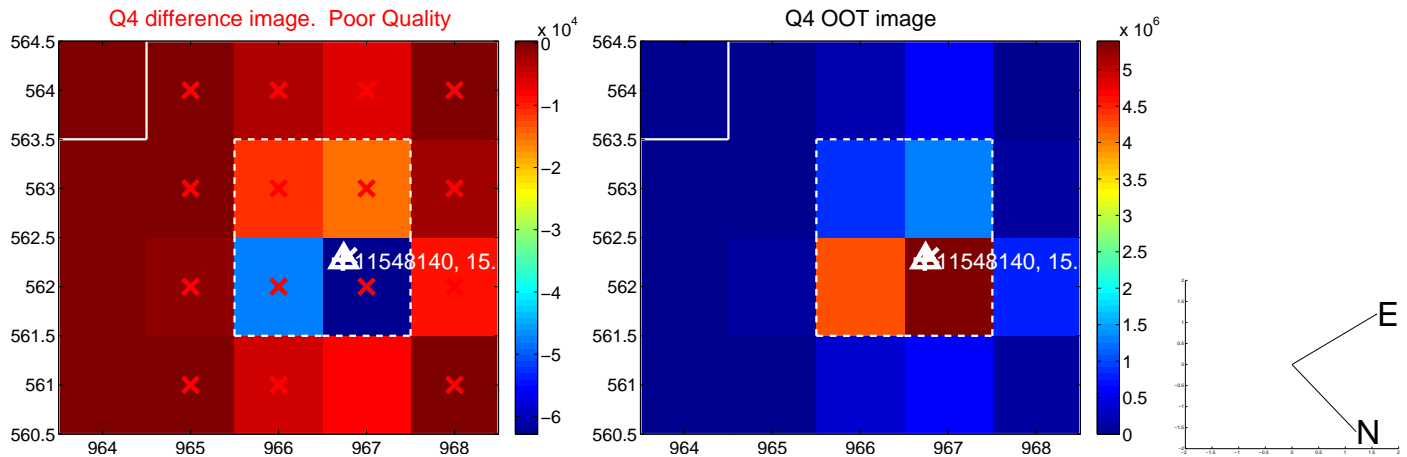
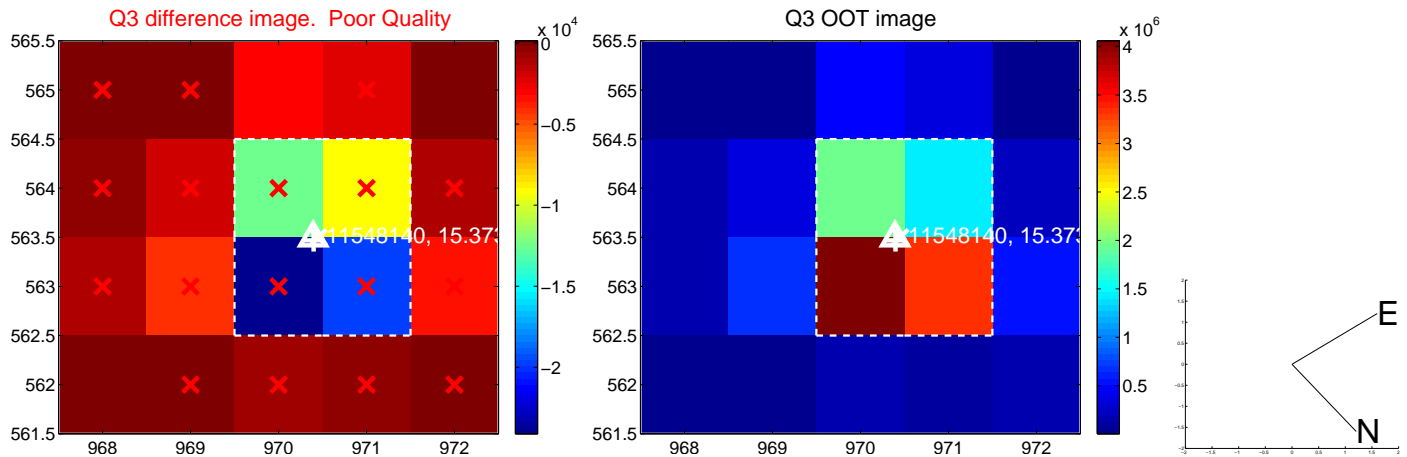
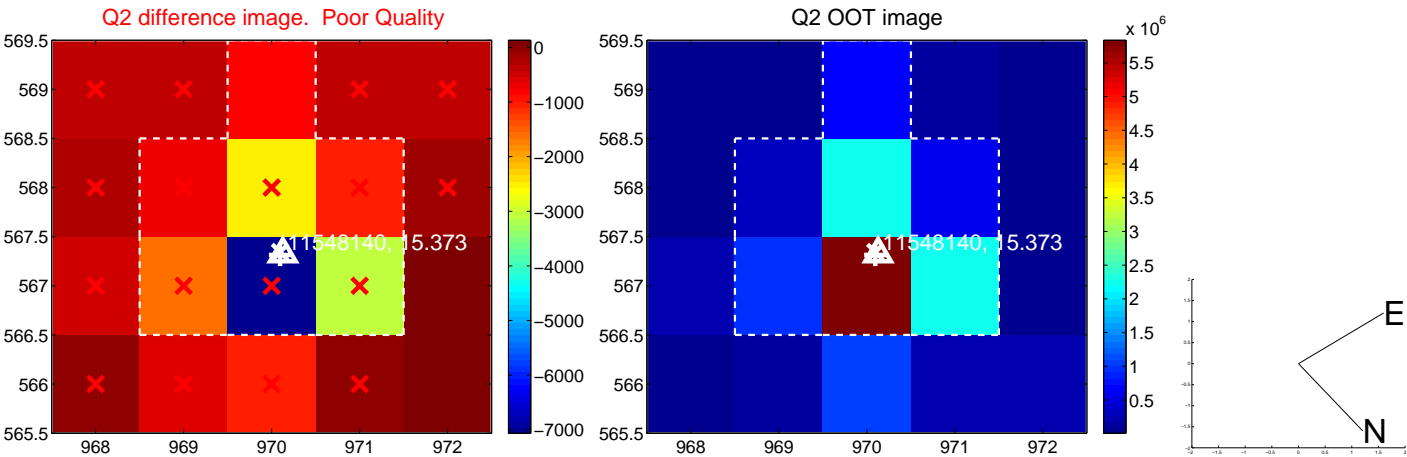
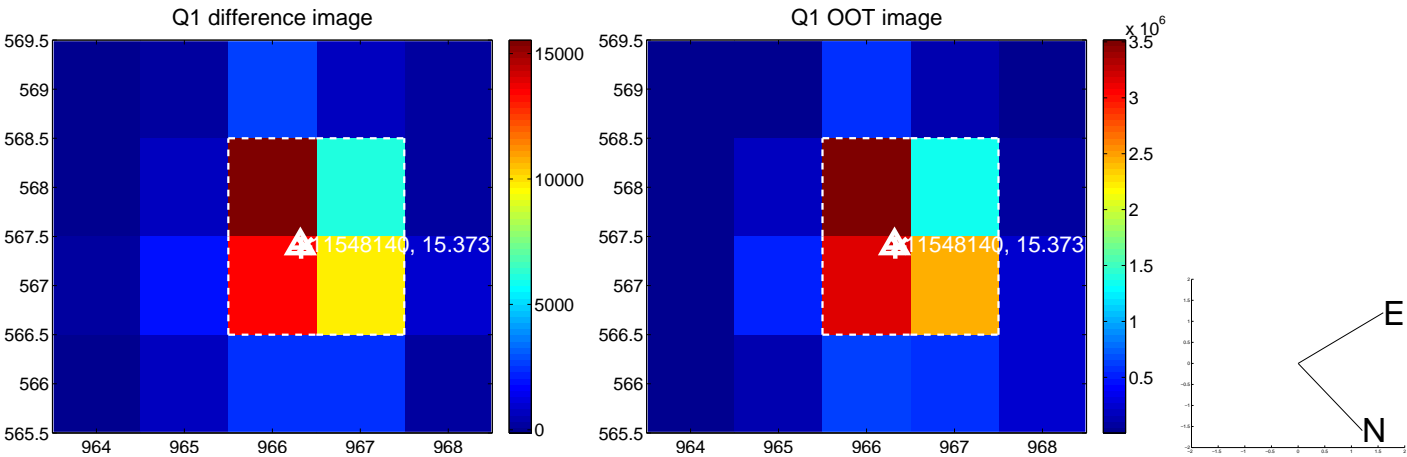


offset from photometric centroids

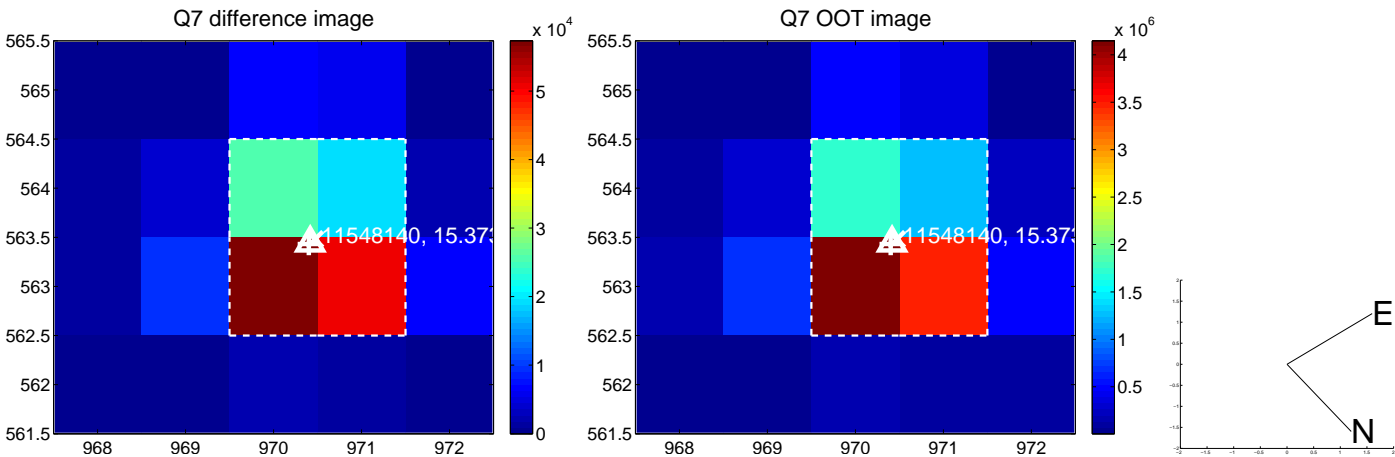
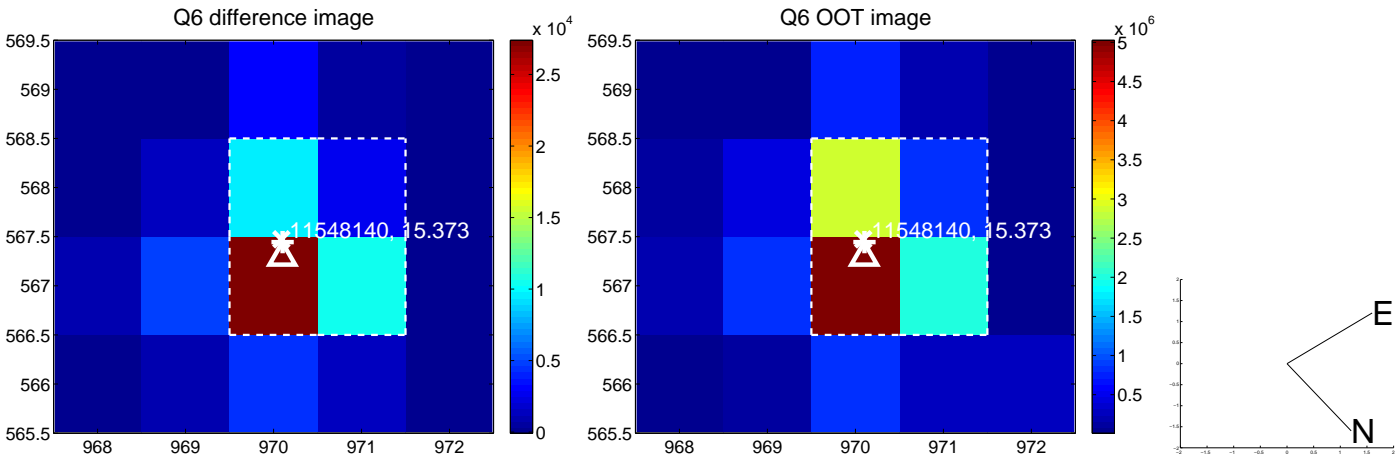
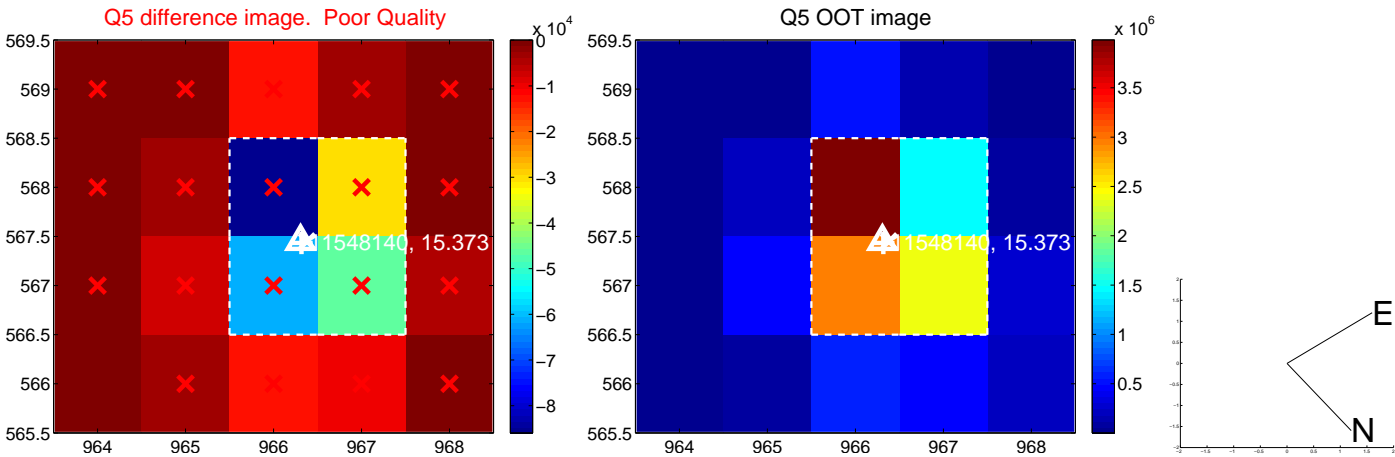


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

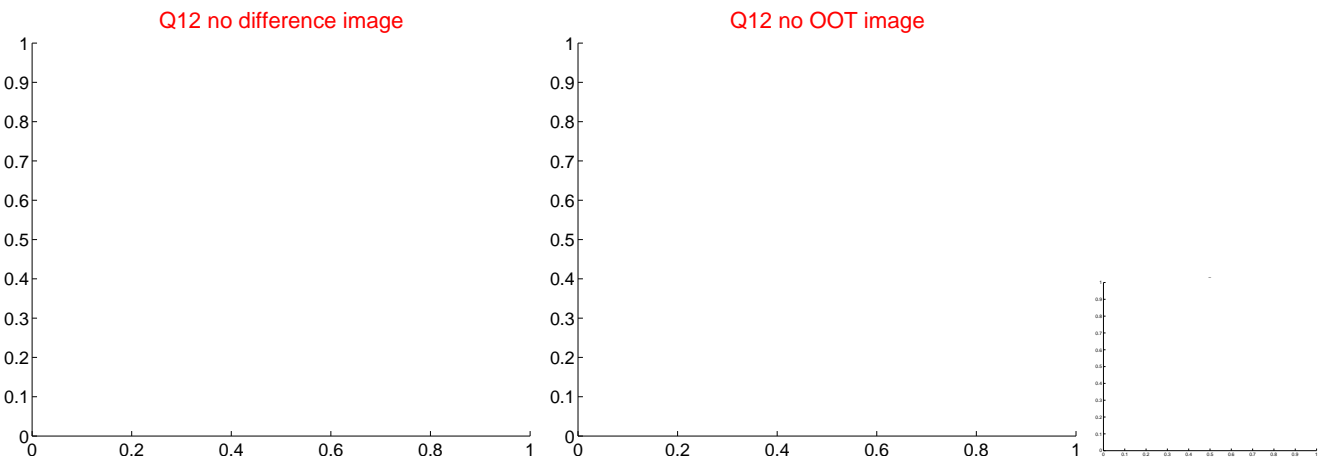
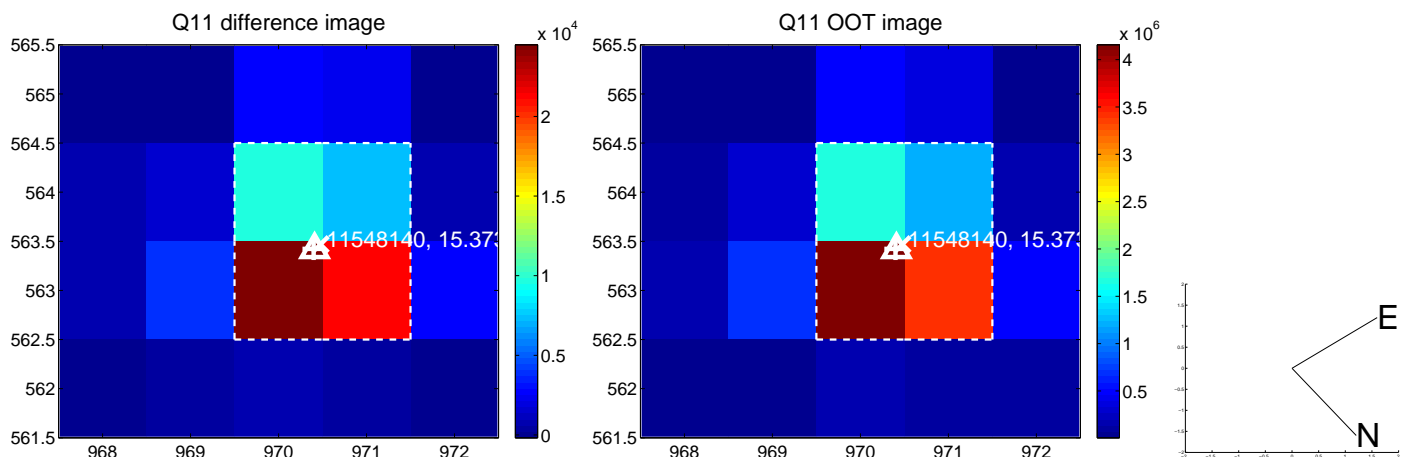
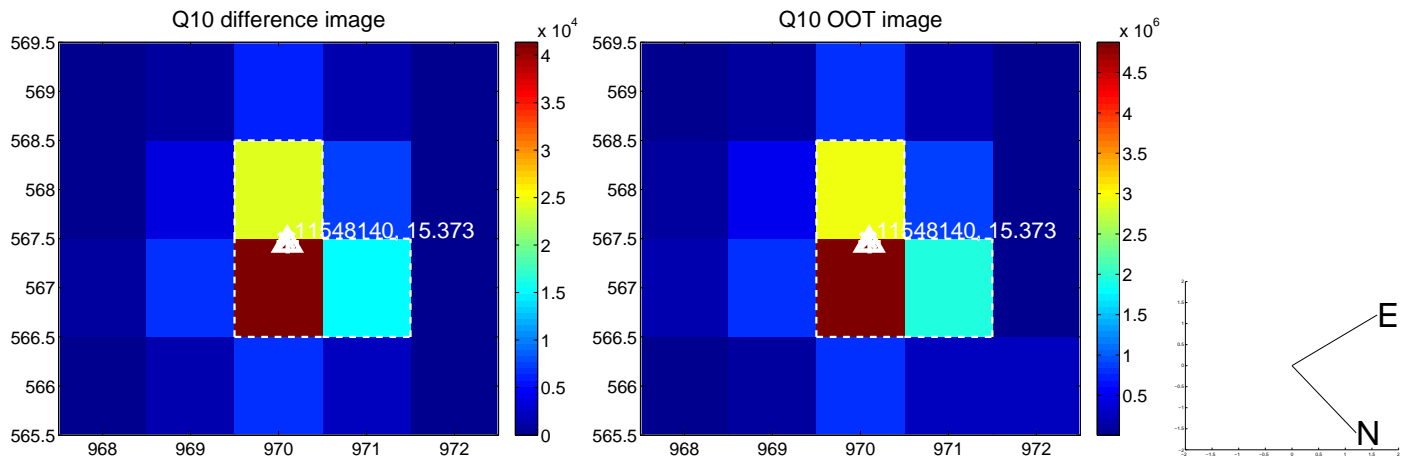
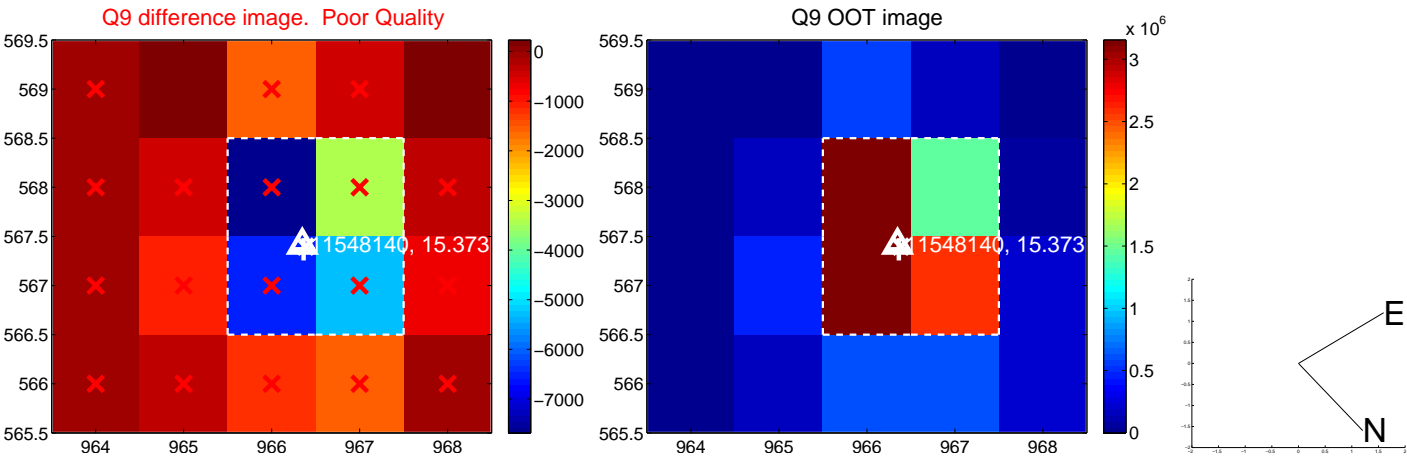
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



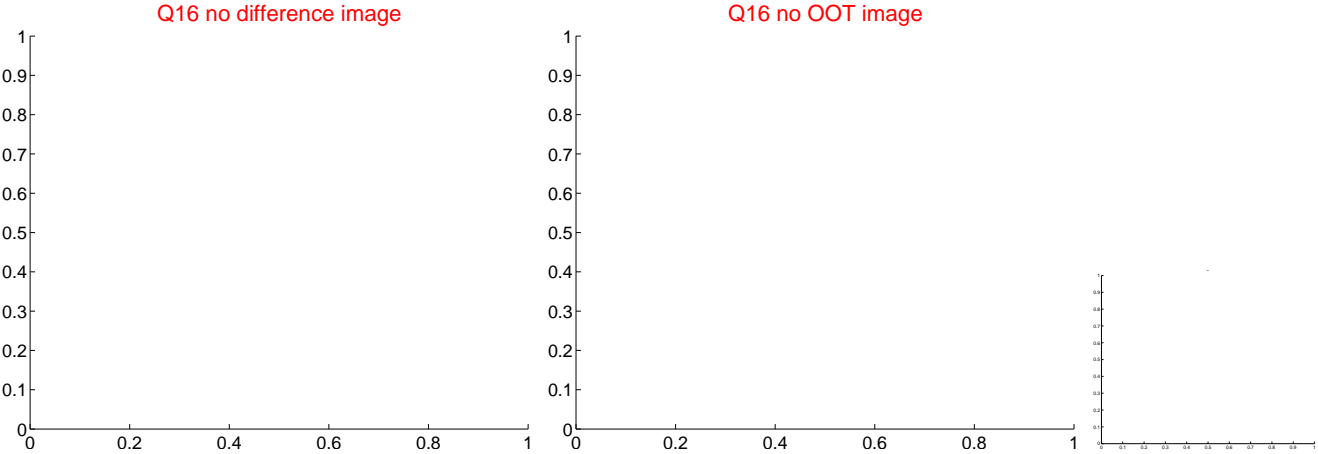
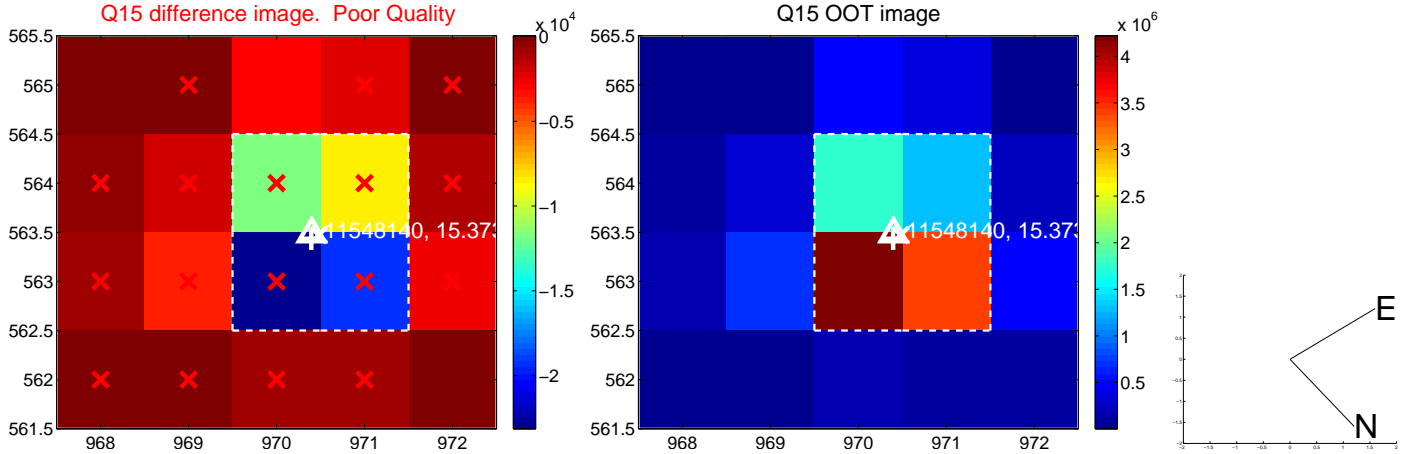
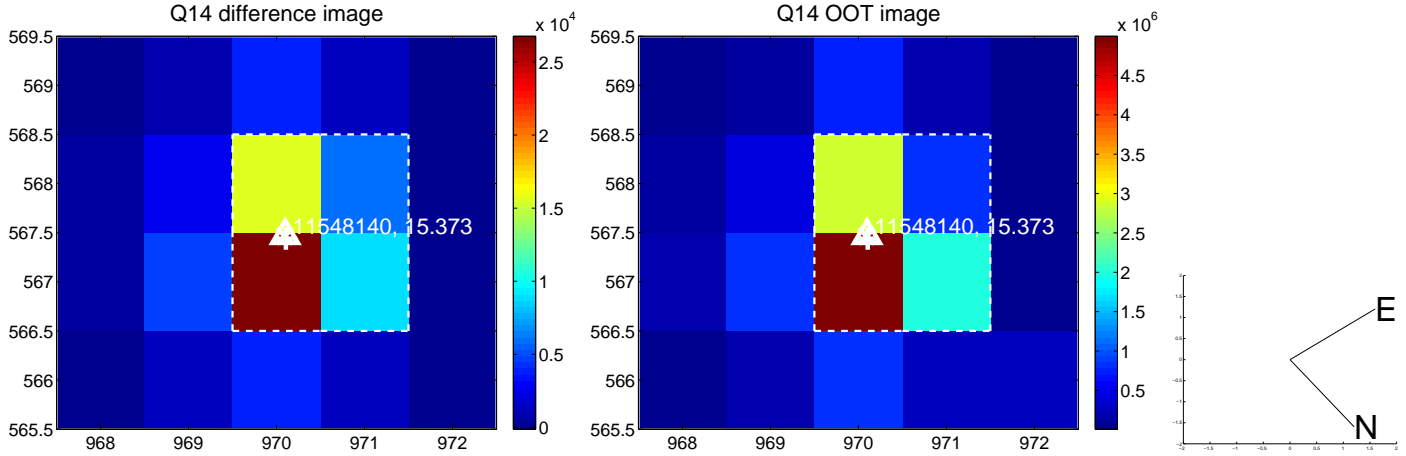
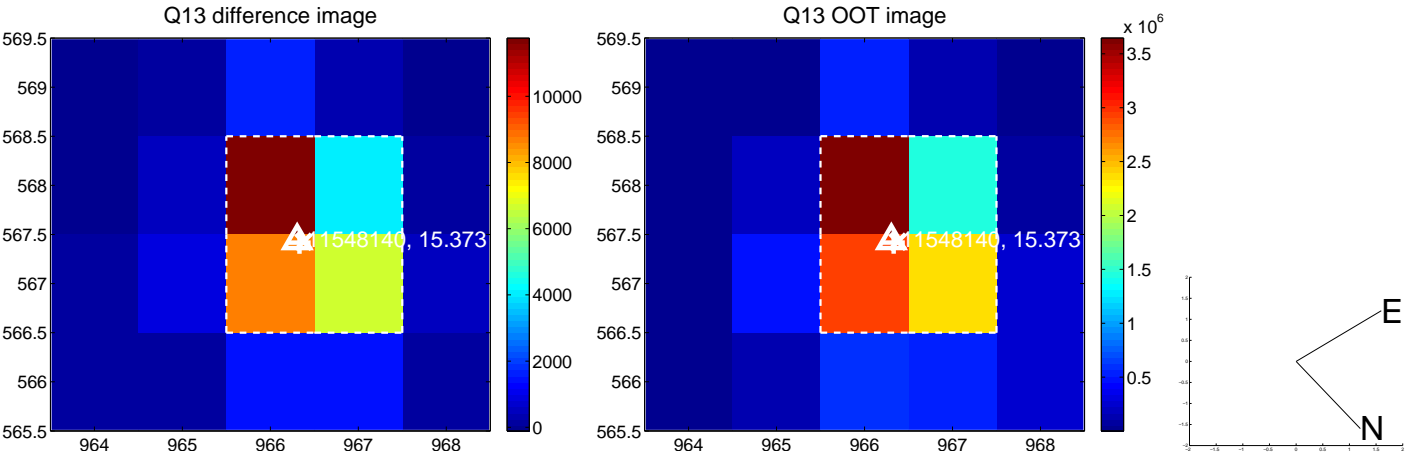
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



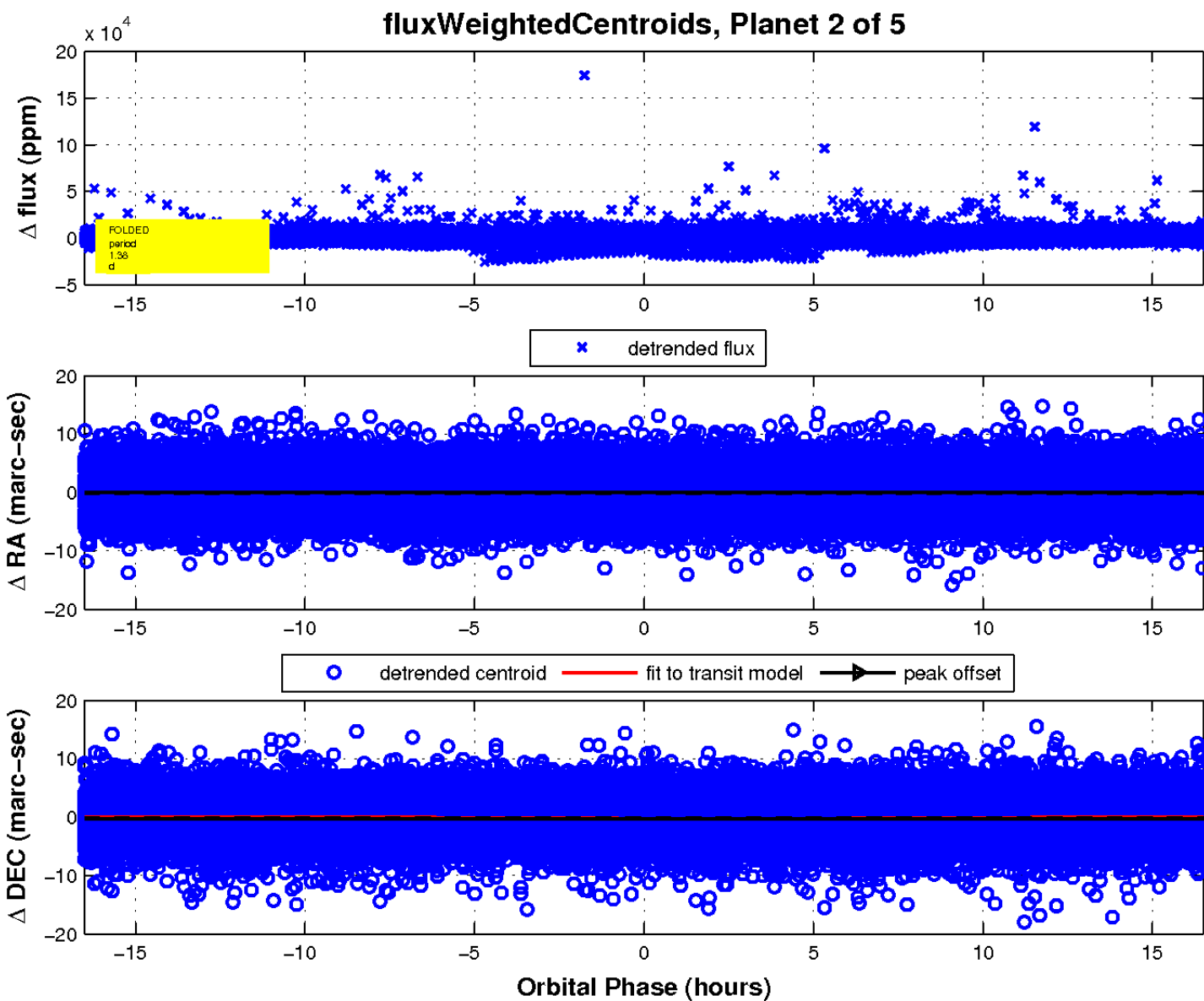
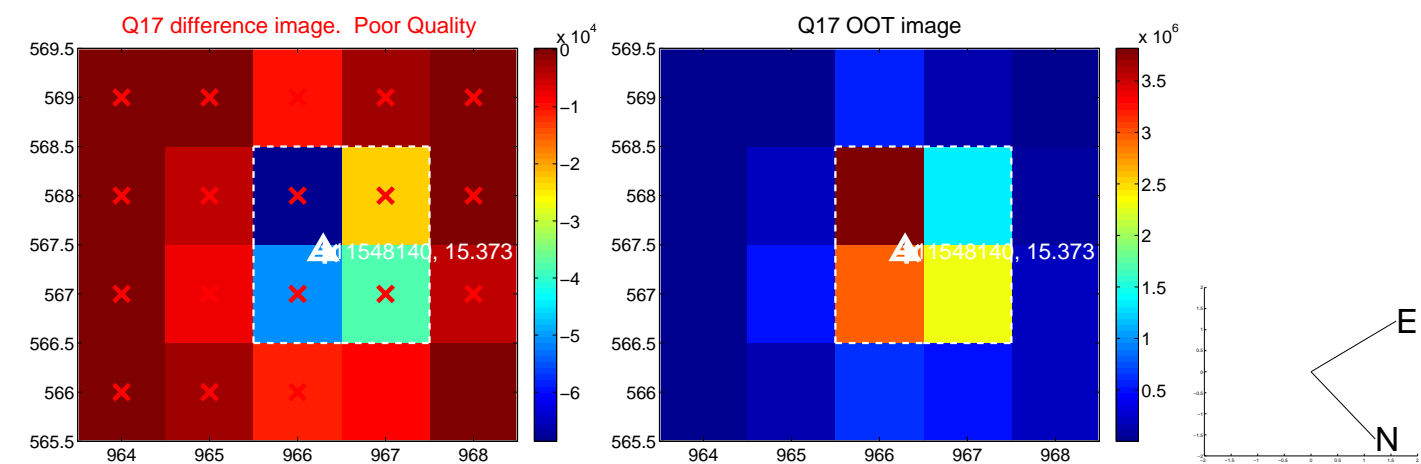
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

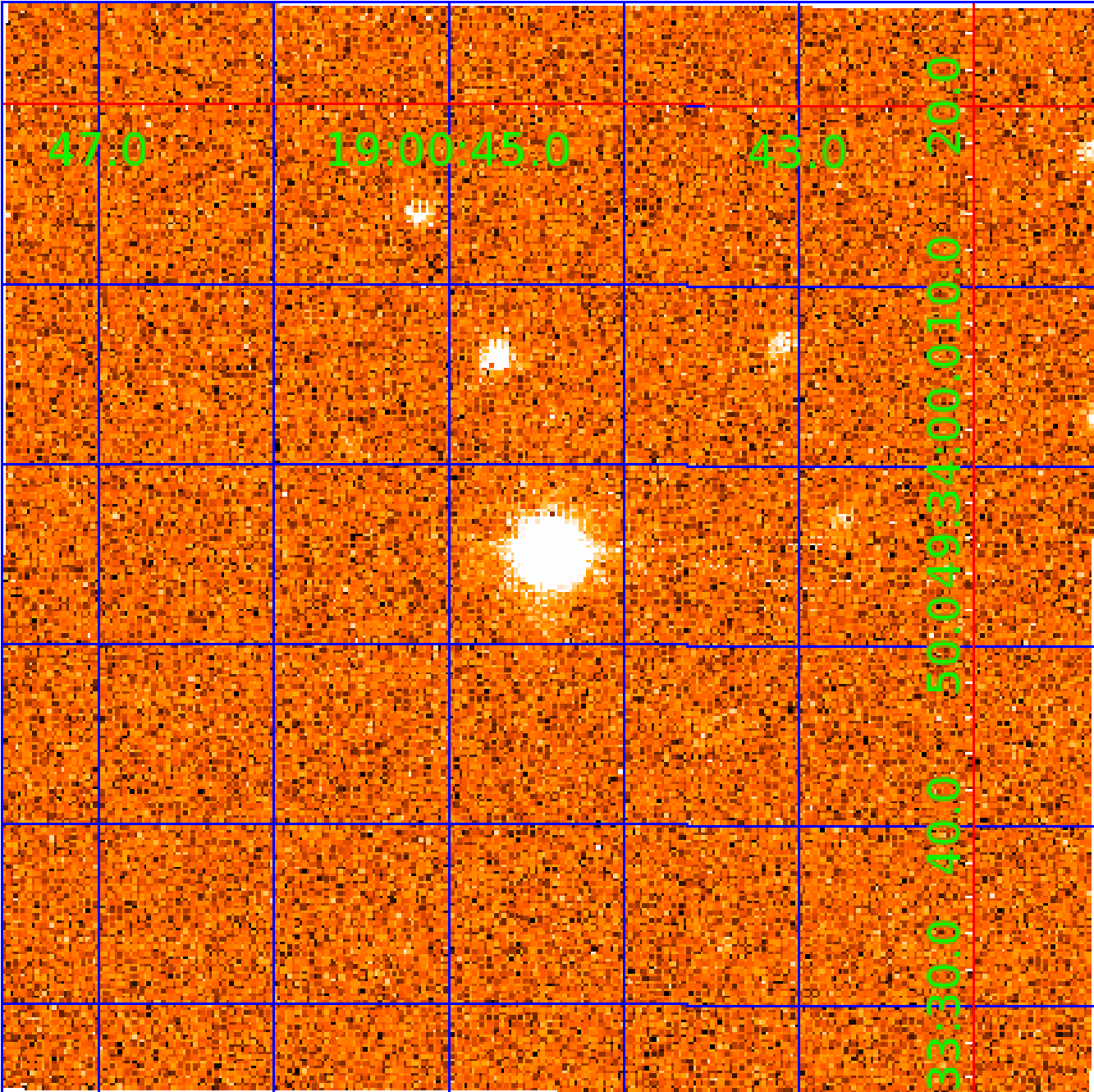


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011548140

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})
011548140-01	OBS	0256.01	1.378635	132.561387	1769.2	0.907	110.8	30.8	0.44	3440	2.03	68.58
011548140-02	OBS	No	1.375607	132.570133	1410.5	5.000	11.5	-1.0	0.44	3440	1.60	68.78
011548140-03	OBS	No	4.139812	132.171679	1210.8	3.500	8.8	-1.0	0.44	3440	1.49	15.83
011548140-04	OBS	No	119.622896	170.927926	2425.9	9.059	8.4	5.7	0.44	3440	2.13	0.18
011548140-05	OBS	No	146.834095	200.640362	4557.5	3.243	9.7	7.2	0.44	3440	2.89	0.14

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011548140-01	OBS	FP	0.00	0	1	0	0	SWEET_EB
011548140-02	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_NOFITS
011548140-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_NOFITS
011548140-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV— MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
011548140-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV— MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—HALO_GHOST

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.

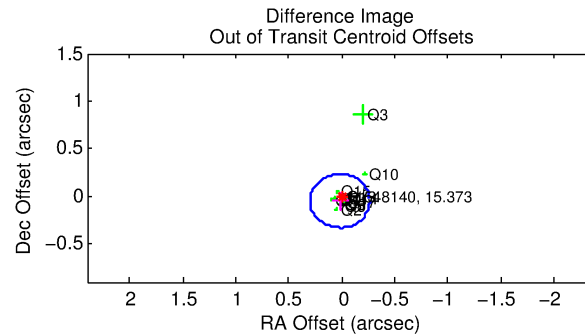
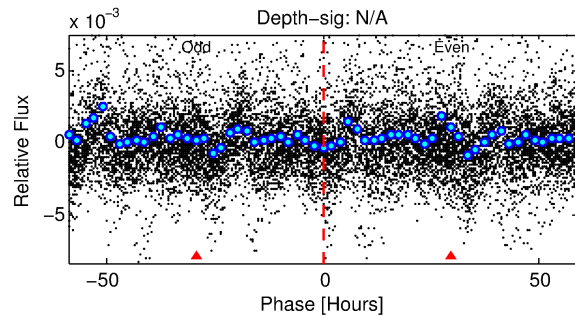
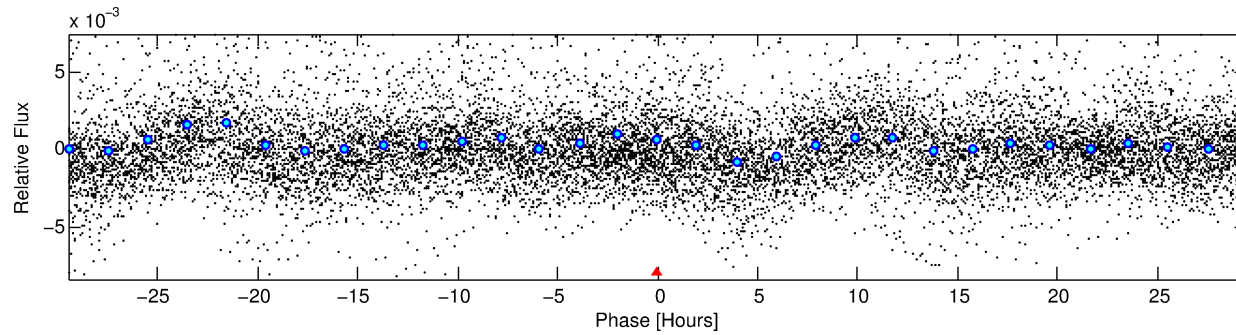
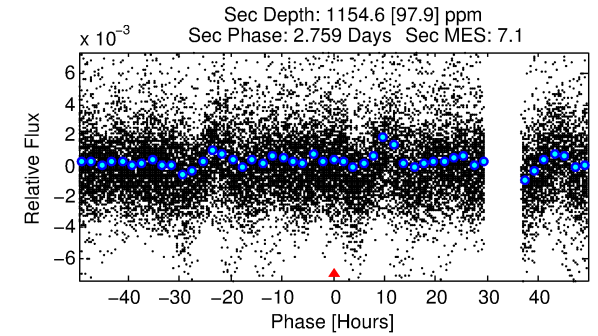
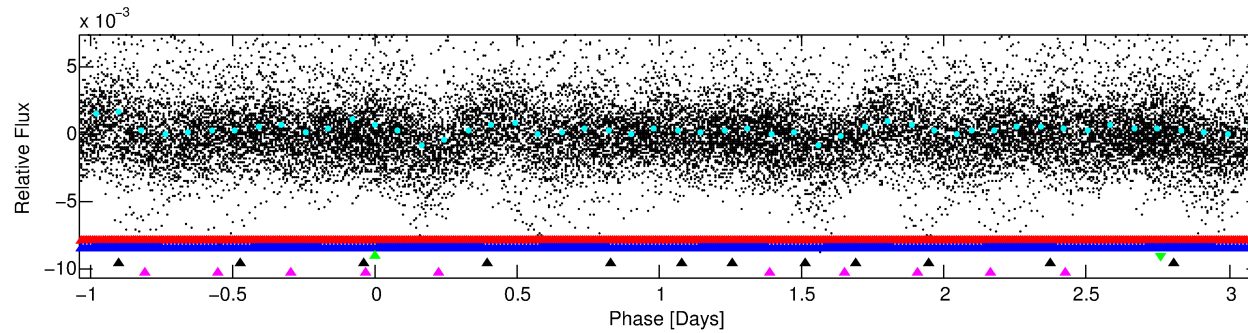
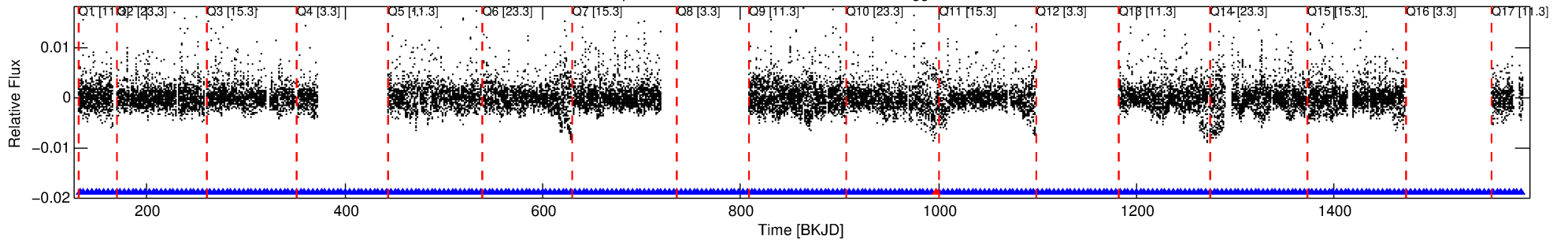
Ephemeris Match Information For 011548140-03

No Significant Match Found

DV One-Page Summary

KIC: 11548140 Candidate: 3 of 5 Period: 4.140 d
KOI: K00256 Corr: No Ephemeris Match

Kp: 15.37 R*: 0.44 Rs Teff: 3440.0 K Logg: 4.82 Fe/H: 0.460



TPS TCE Results:

Period = 4.13981 d
Epoch = 132.1717 BKJD

DV fit results are unavailable

DV Diagnostic Results:

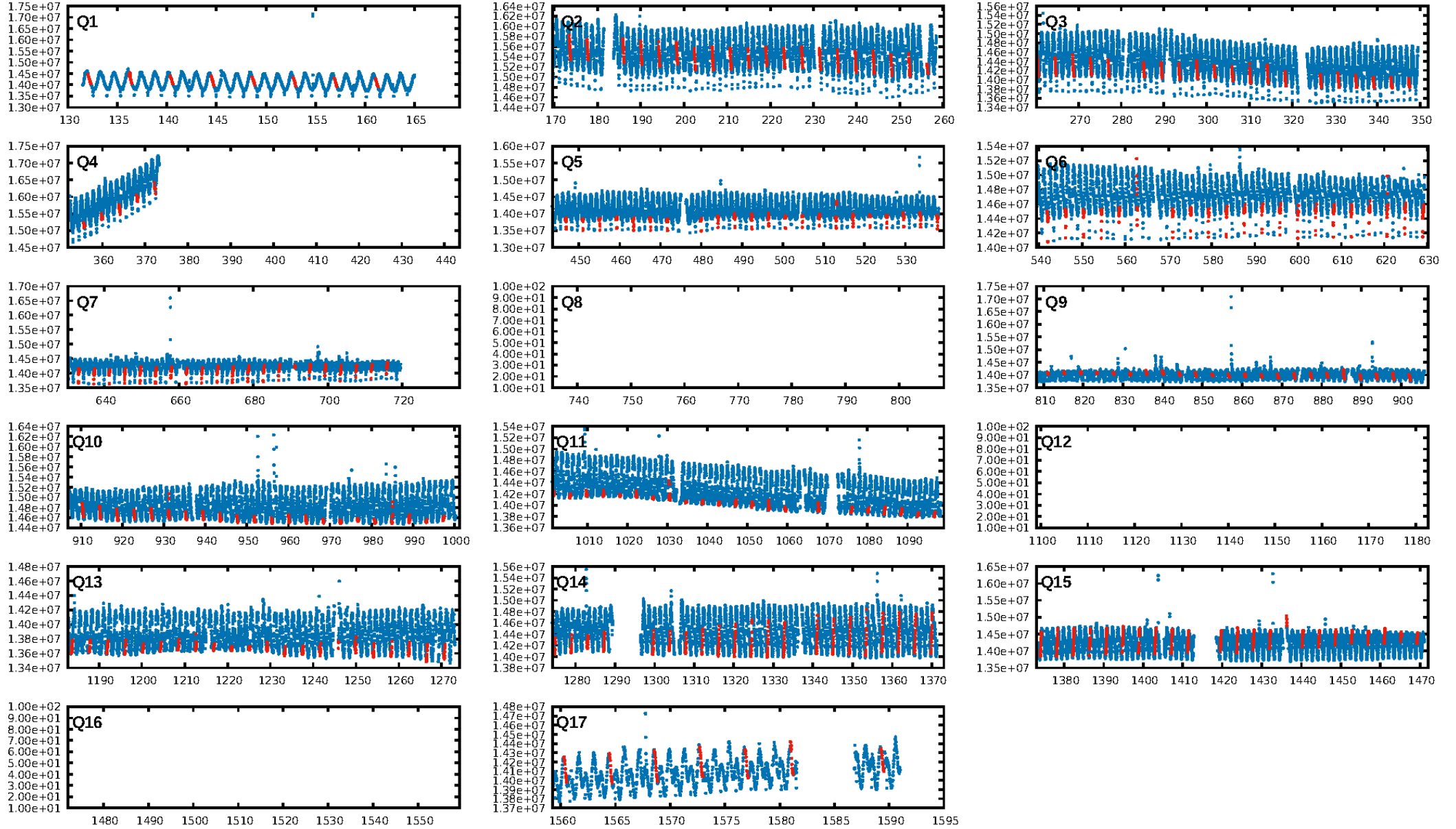
ShortPeriod-sig: 100.0% [18.33 σ]
LongPeriod-sig: 100.0% [285.38 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 3.32e-13
RollingBand-fgt: 1.00 [203/204]
GhostDiagnostic-chr: -54.52

Centroid-sig: 6.9%
Centroid-so: 0.054 arcsec [0.22 σ]
OotOffset-rm: 0.051 arcsec [0.54 σ]
KicOffset-rm: 0.222 arcsec [3.06 σ]
OotOffset-st: 4/4/1/5 [14]
KicOffset-st: 4/4/1/5 [14]
DiffImageQuality-fgm: 0.64 [9/14]
DiffImageOverlap-fno: 0.00 [0/14]

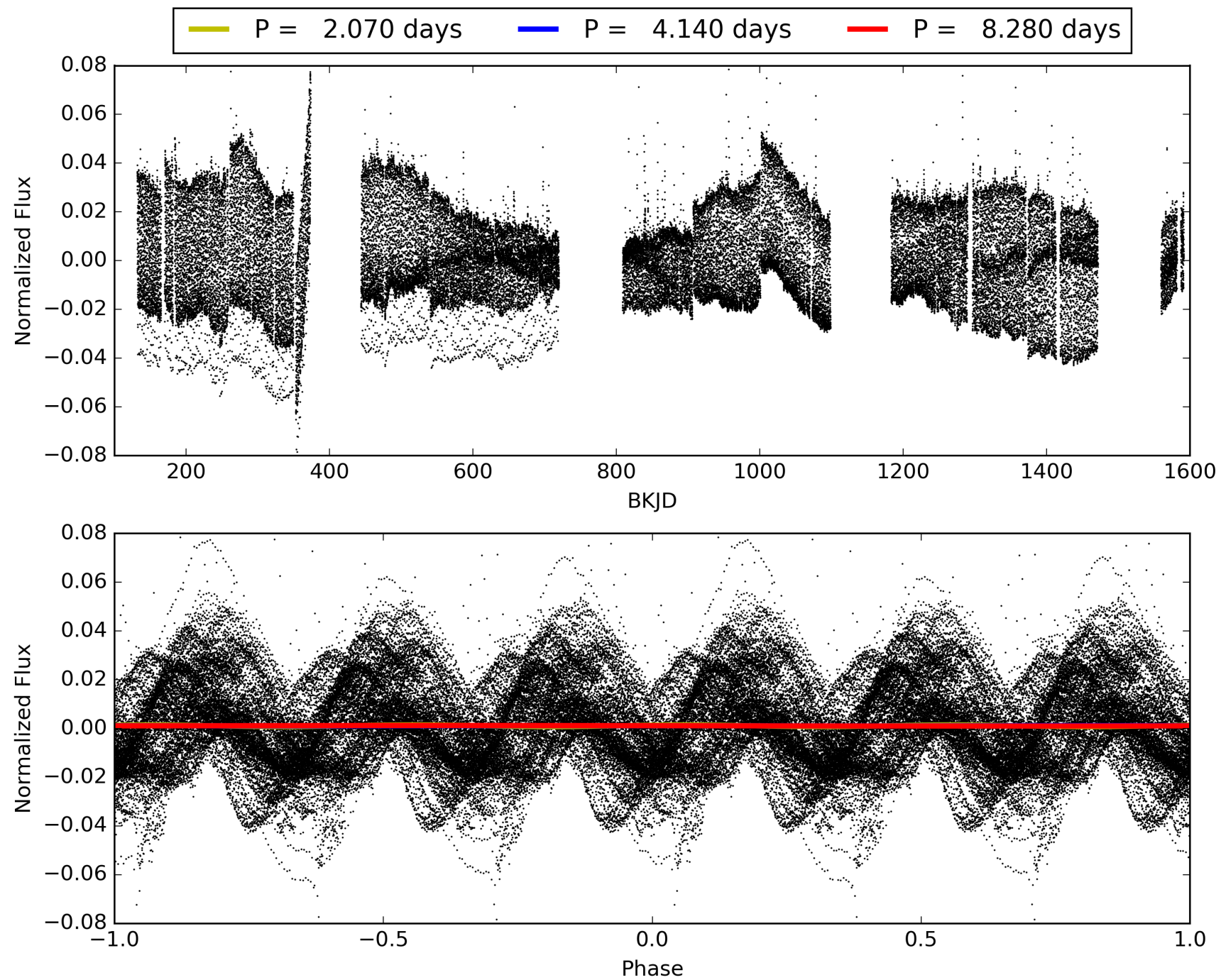
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:38:13 Z

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

TCE 011548140-03, PDC Light Curves

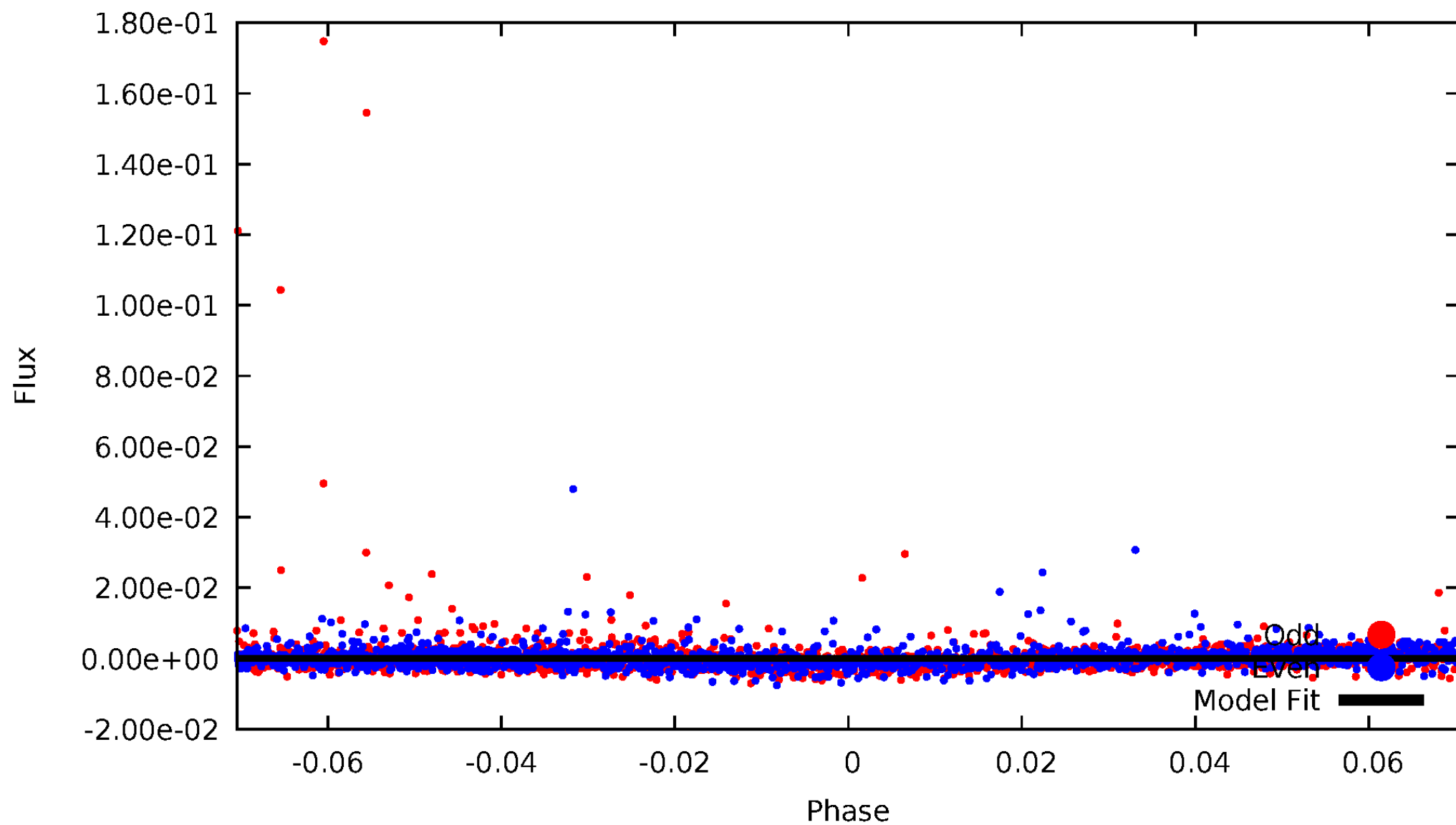


TCE 011548140-03



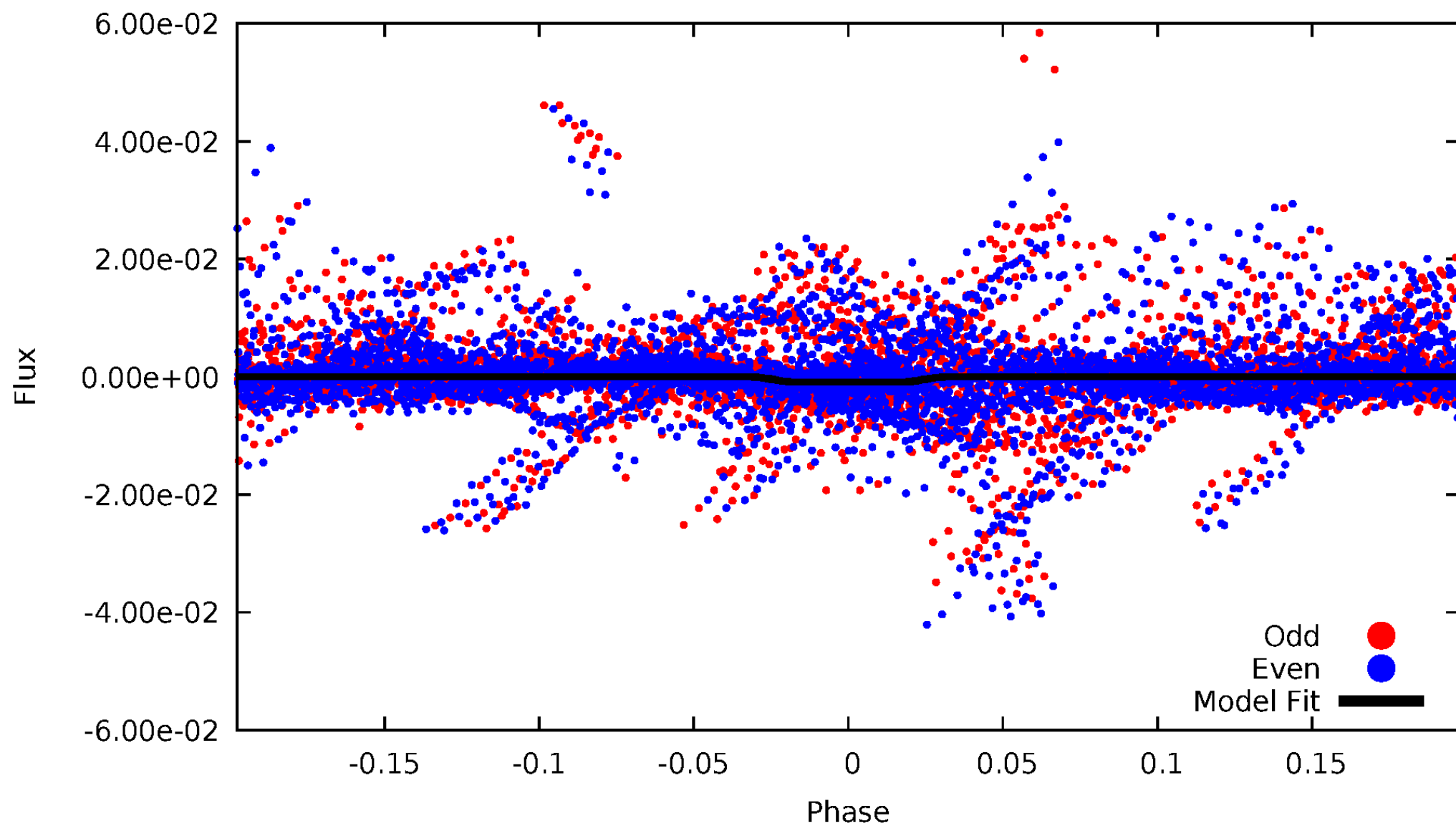
DV Odd/Even

TCE 011548140-03



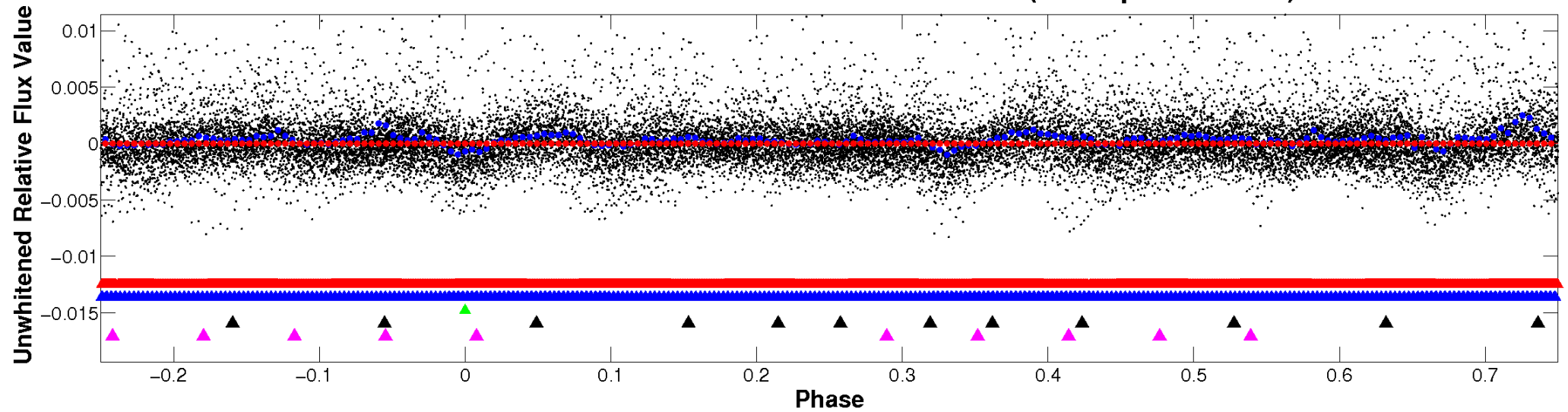
ALT Odd/Even

TCE 011548140-03

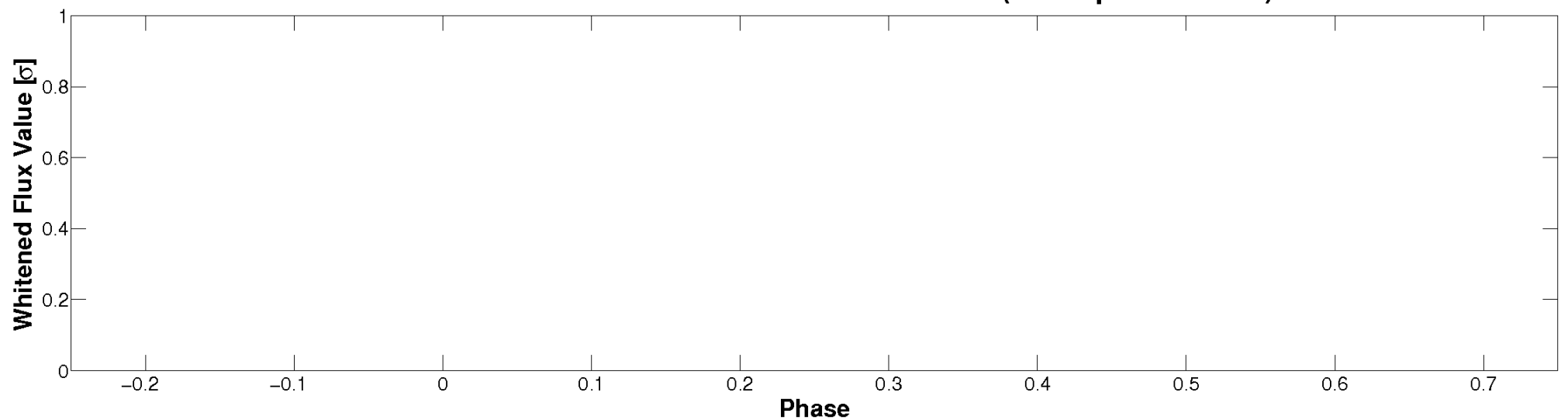


Non-Whitened Vs. Whitened Light Curve

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

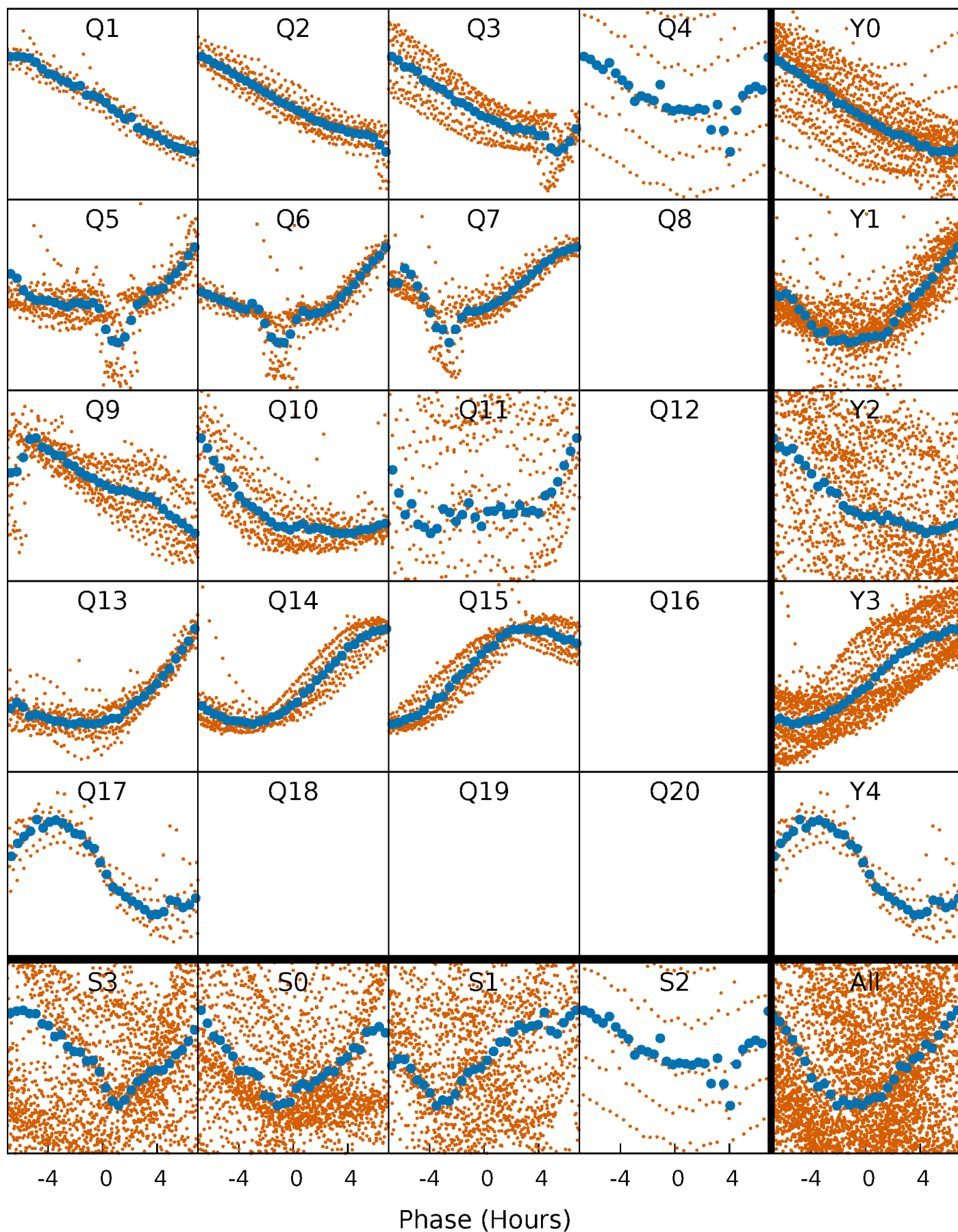


Planet 3 : Phased Whitened Flux Time Series (TPS Epoch/Period)



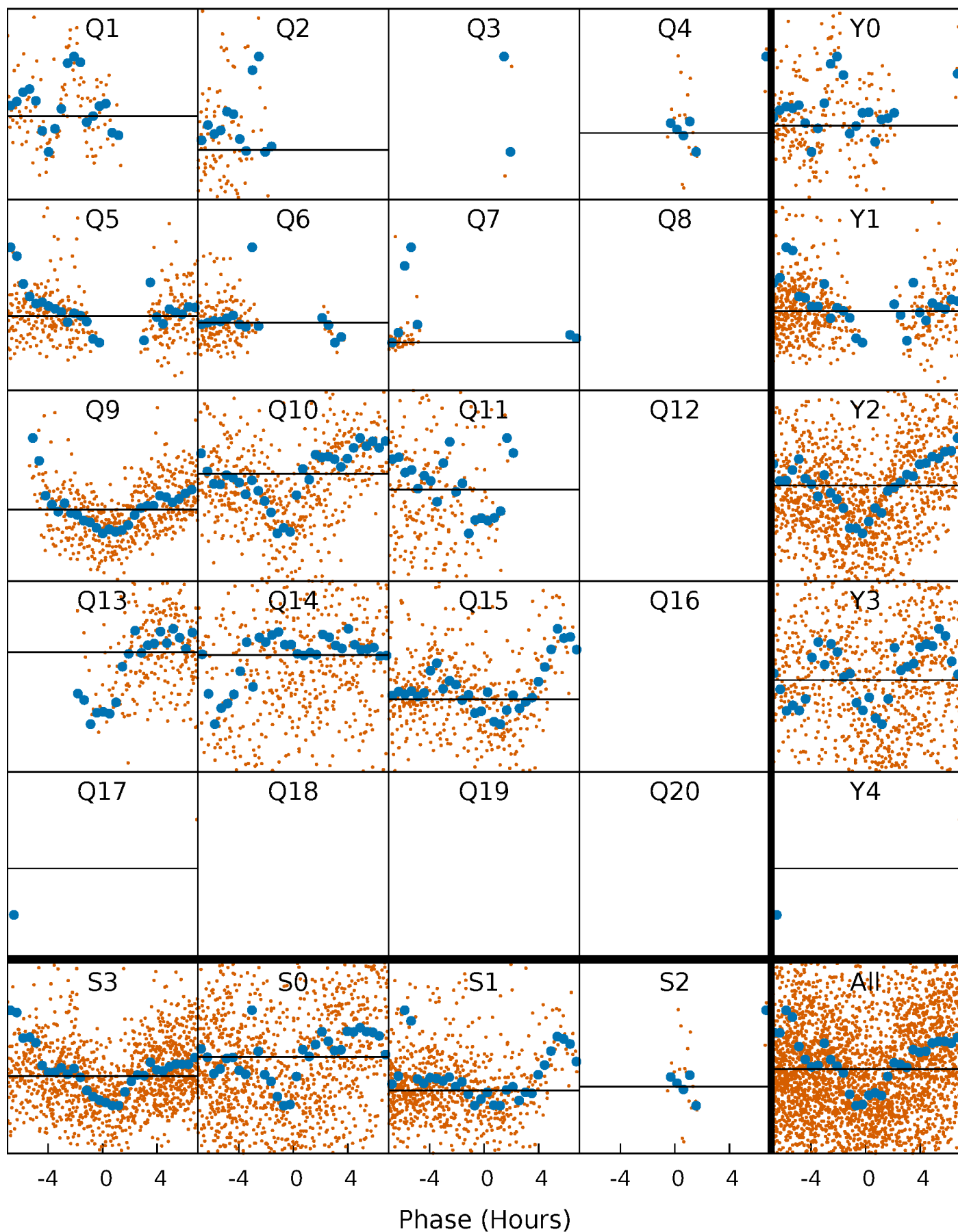
PDC Quarter-Phased Transit Curves

TCE 011548140-03 P= 4.139812 Days $T_0=132.171679$ (BKJD)



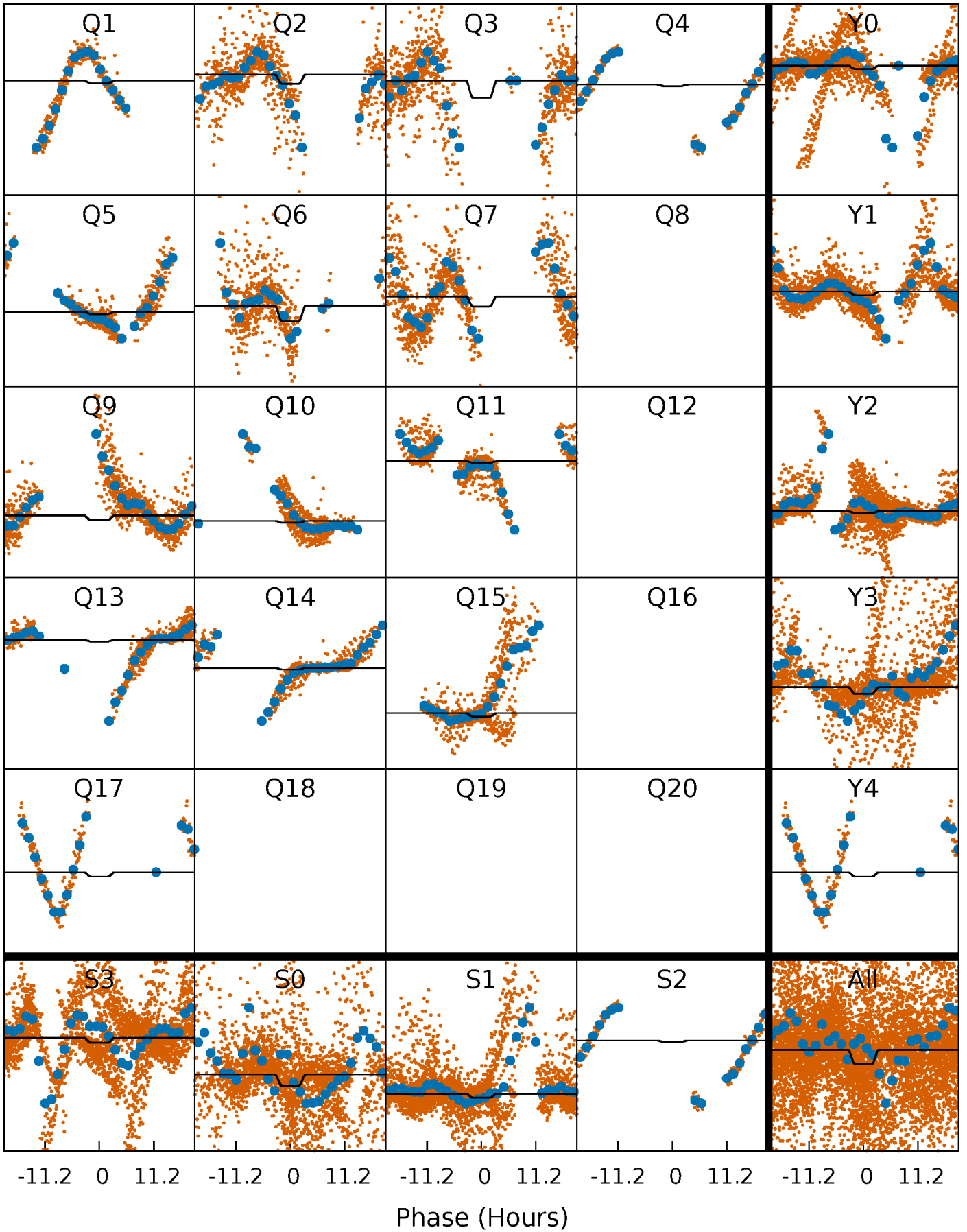
DV Quarter-Phased Transit Curves

TCE 011548140-03 P= 4.139812 Days $T_0=132.171679$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

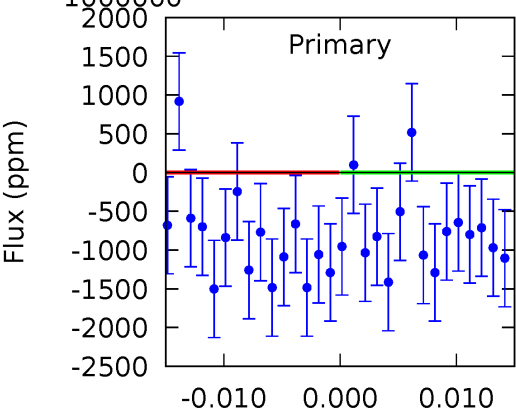
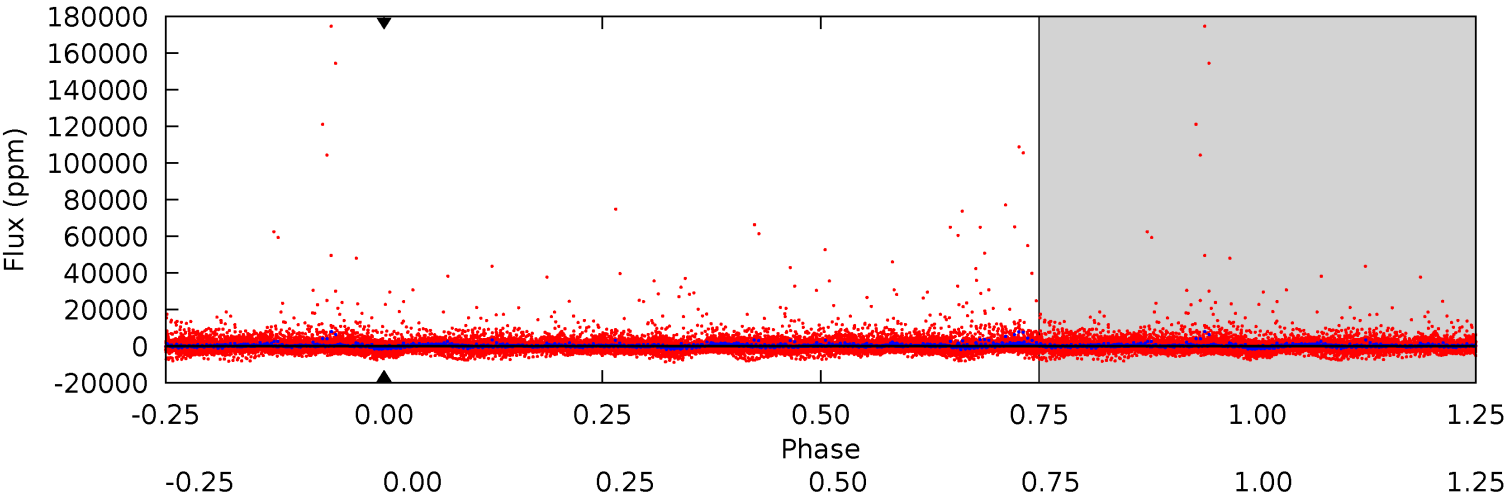
TCE 011548140-03 P= 4.139812 Days $T_0=131.981170$ (BKJD)



DV Model-Shift Uniqueness Test

011548140-03, P = 4.139812 Days, E = 128.031867 Days

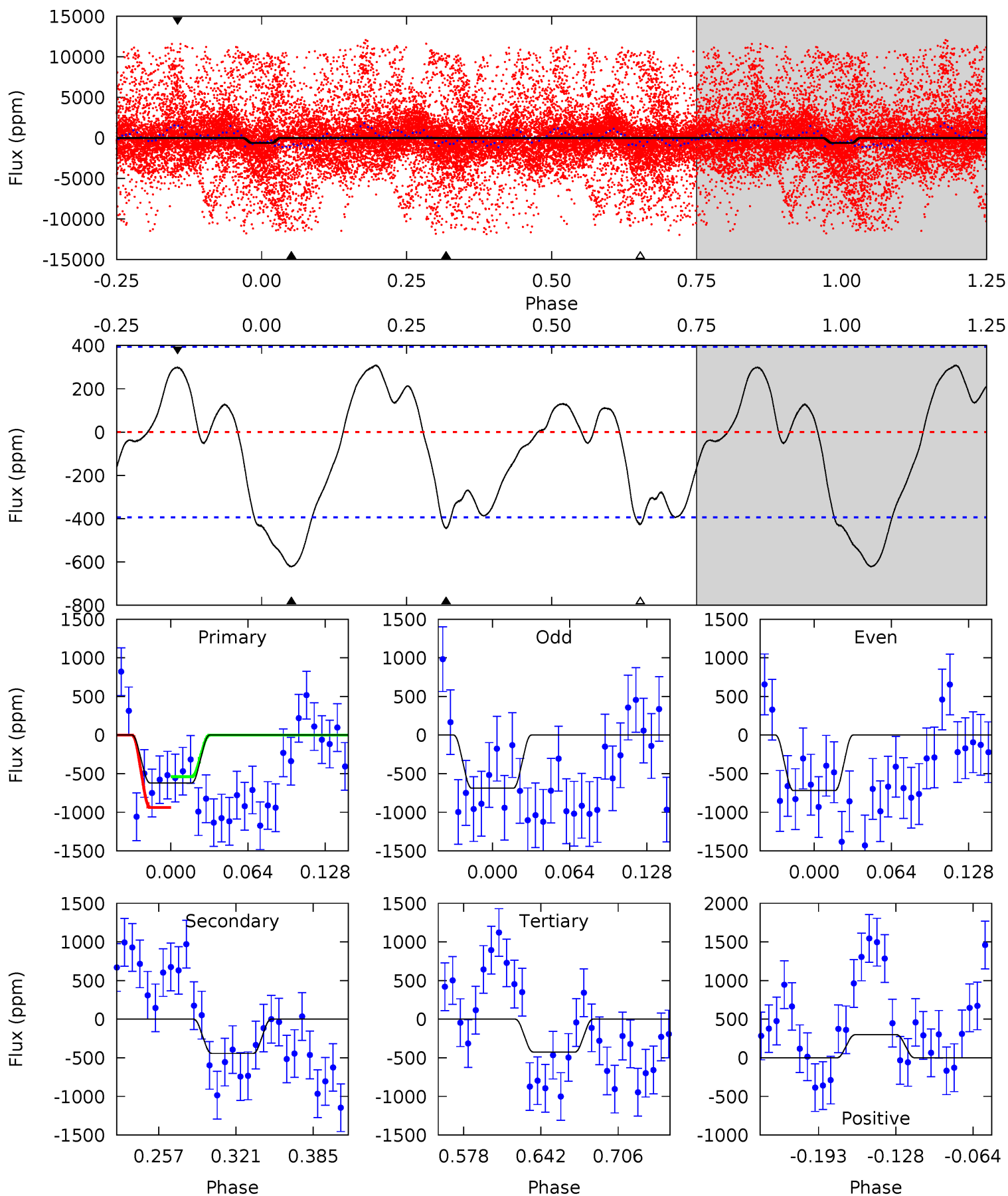
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

011548140-03, P = 4.139812 Days, E = 127.841358 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.33	5.24	5.04	3.53	4.66	1.85	2.42	2.29	3.80	0.20	1.71	0.19	0.02	0.33	2.41



Stellar Parameters For KIC 011548140

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	3440^{+68}_{-75}	$4.820^{+0.044}_{-0.040}$	$0.460^{+0.050}_{-0.150}$	$0.439^{+0.035}_{-0.052}$	$0.465^{+0.032}_{-0.060}$	$7.721^{+2.043}_{-1.247}$
	+2%/-2%	+1%/-1%	+11%/-33%	+8%/-12%	+7%/-13%	+26%/-16%
Source	SPE70	SPE5	SPE70	DSEP		

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

Secondary Eclipse Parameters for KIC 011548140-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$3.73^{+3.67}_{-2.61}$	710^{+20}_{-18}	-3099^{+10082}_{-3371}	$-180.839^{+11347.503}_{-8937.730}$
Alt.	-443 ± 85	$3.83^{+3.62}_{-2.73}$	709^{+20}_{-19}	2382^{+933}_{-338}	25^{+270}_{-18}

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 $A_{\text{obs}} \gg 1.0$

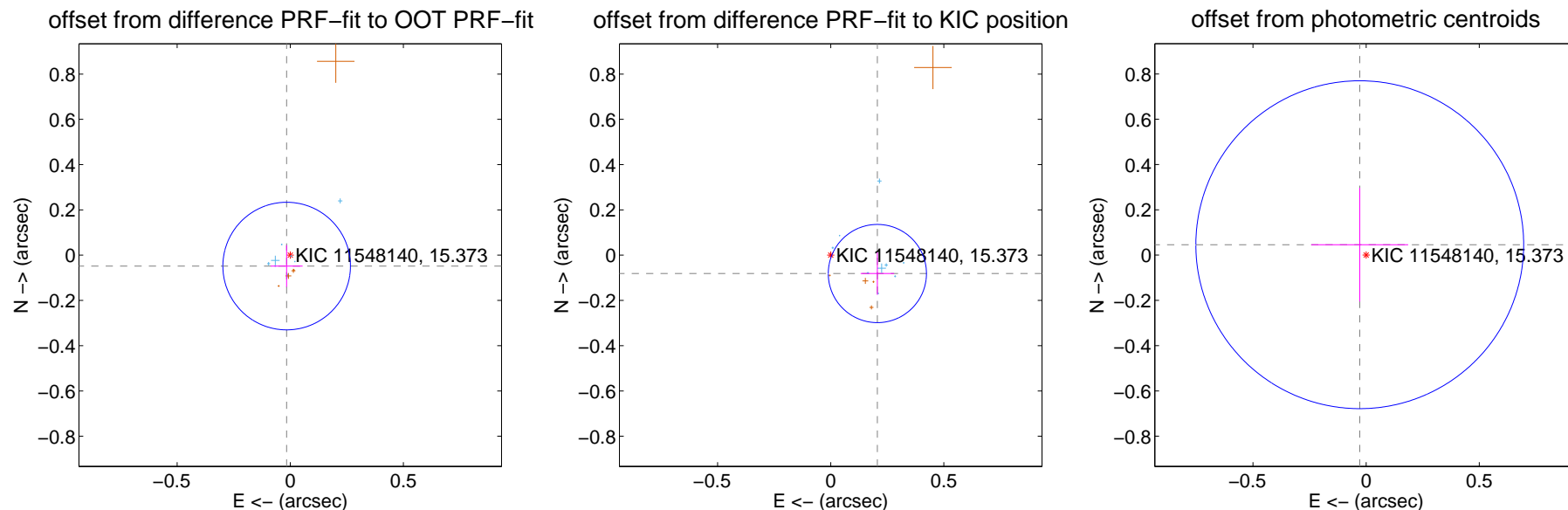
DV Centroid Data

Supplemental centroid analysis for 011548140-03. Kepler magnitude: 15.37. Transit SNR -1.00

There are 9 quarters with good PRF difference image offsets

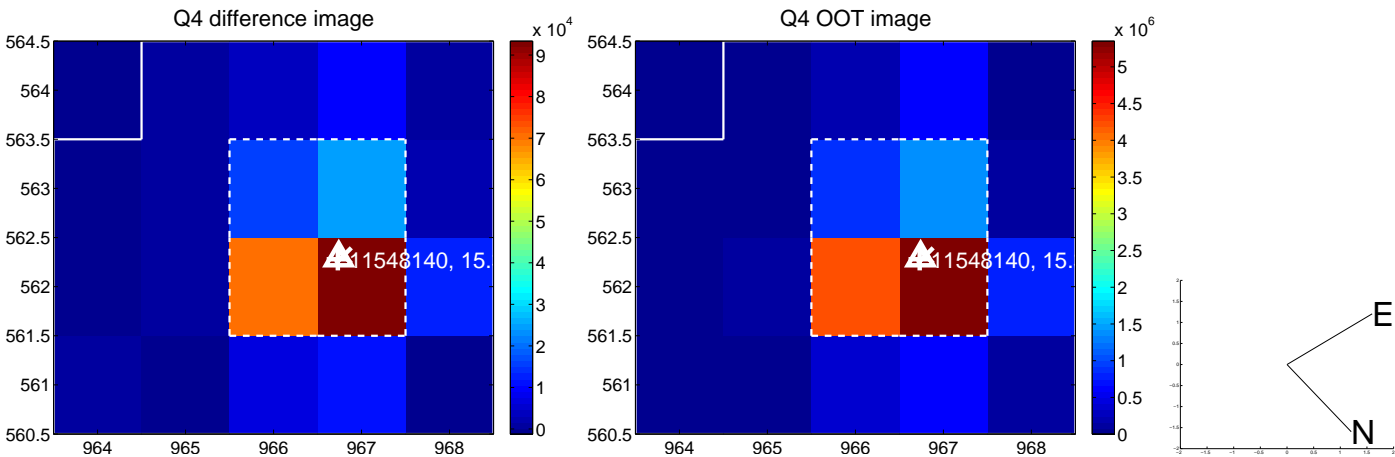
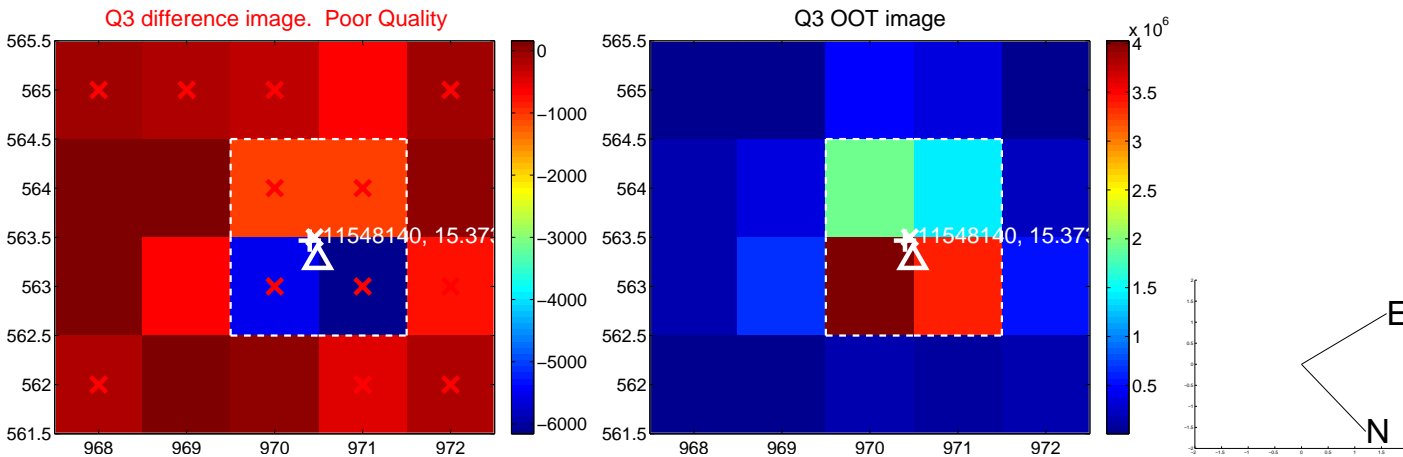
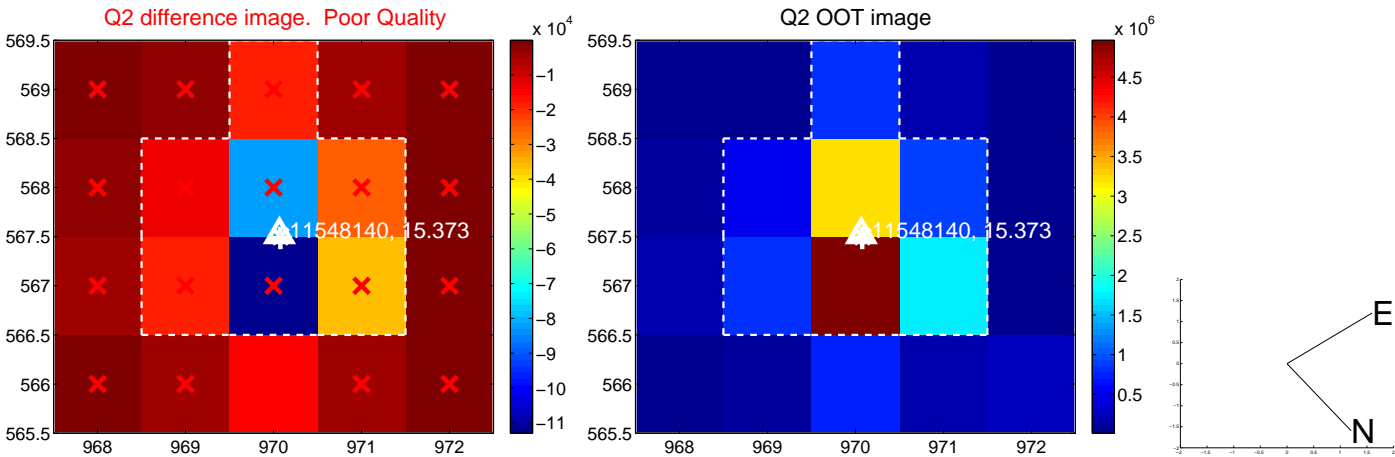
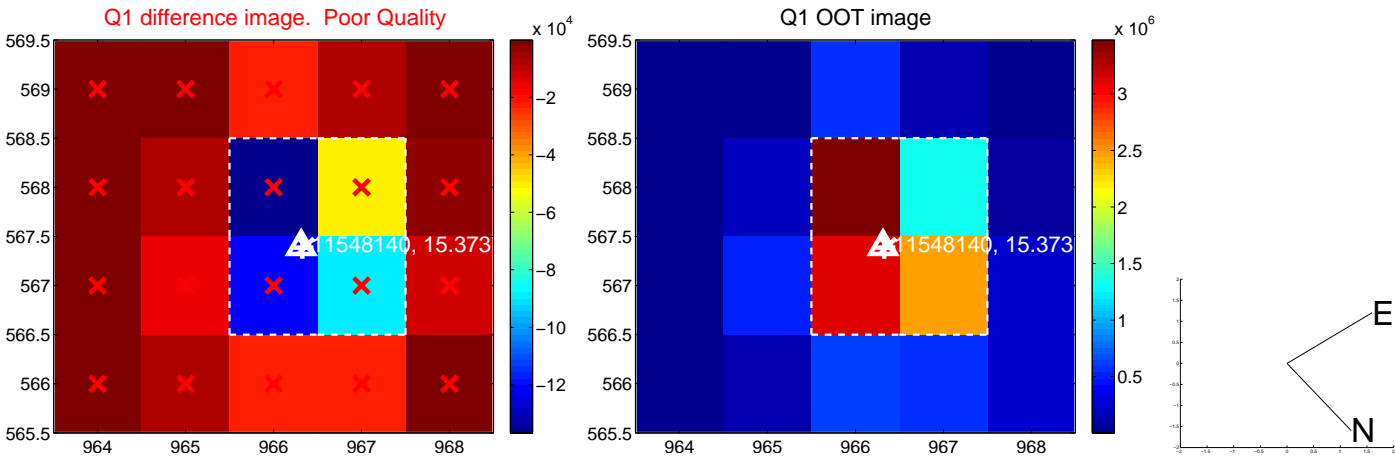
The direct PRF centroid is offset from the target star catalog position by about 0.23 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.051 ± 0.094	0.54	0.016 ± 0.071	-0.048 ± 0.092
PRF-fit source offset from KIC position	0.222 ± 0.072	3.06	-0.206 ± 0.074	-0.081 ± 0.094
photometric centroid source offset	0.05 ± 0.24	0.22	0.03 ± 0.21	0.05 ± 0.25

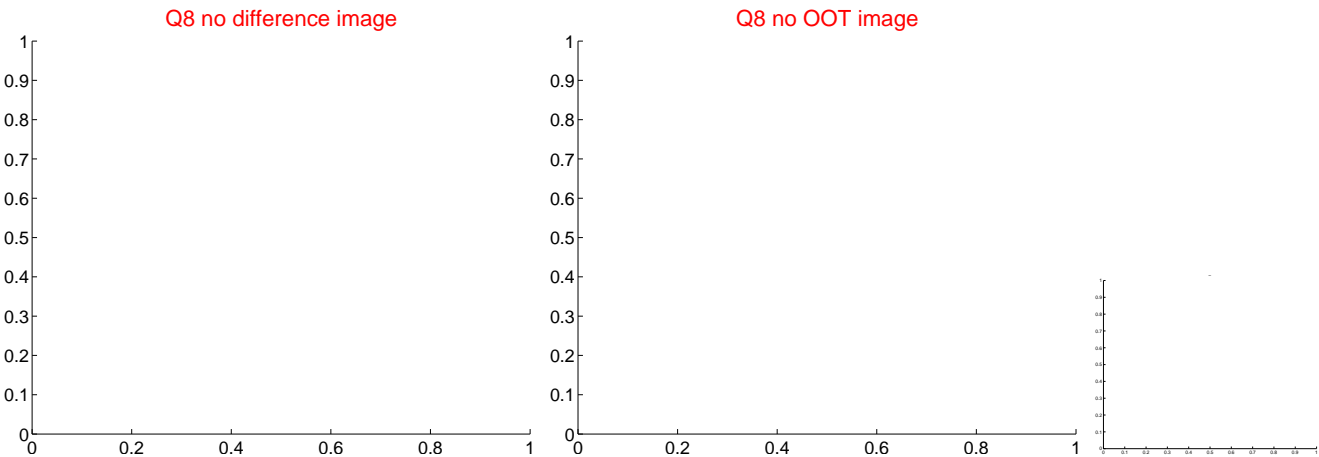
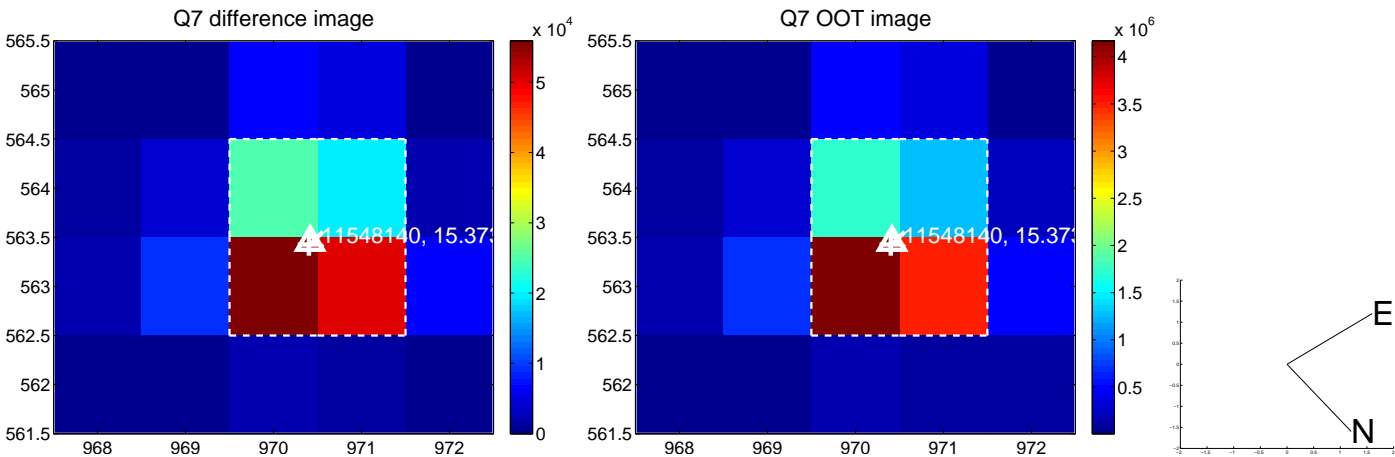
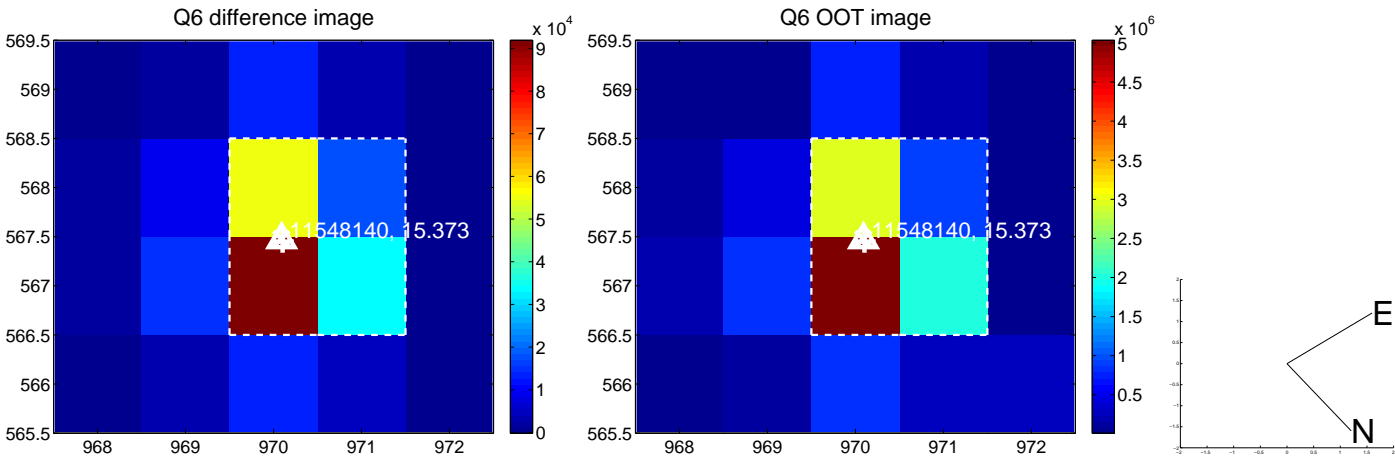
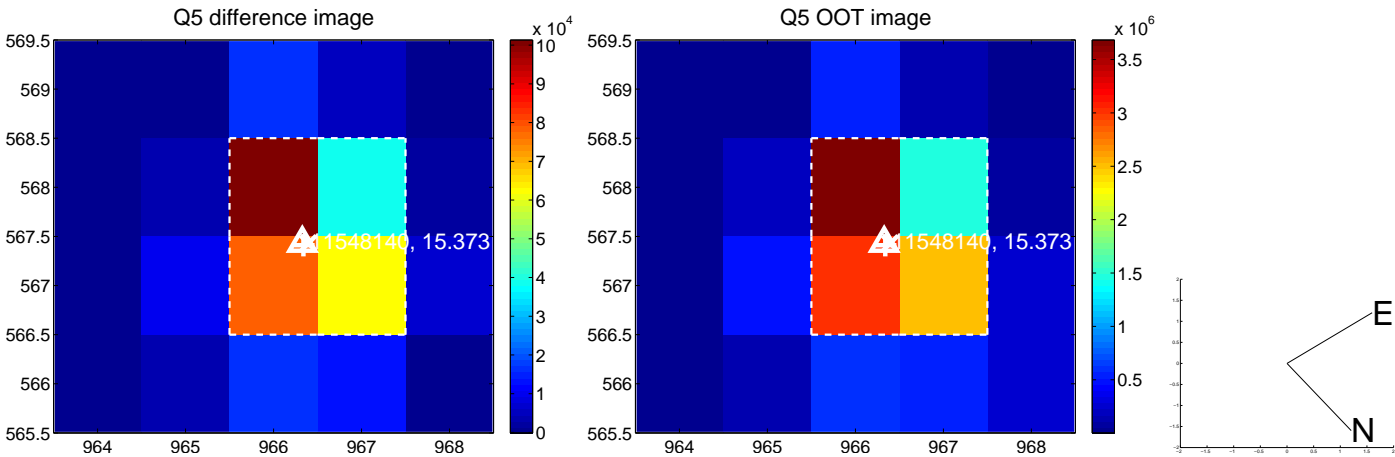


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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.

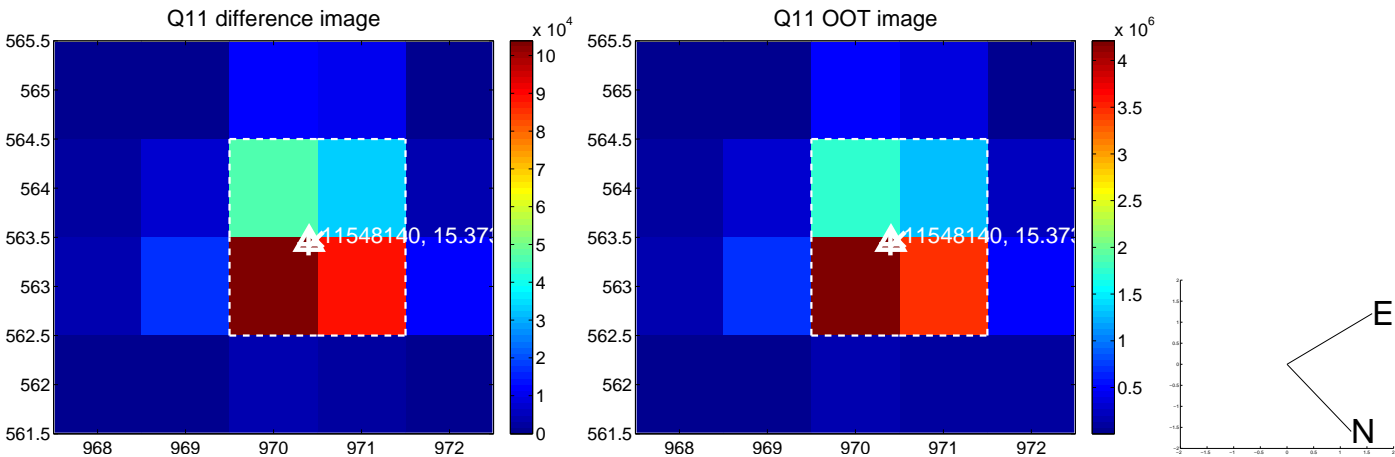
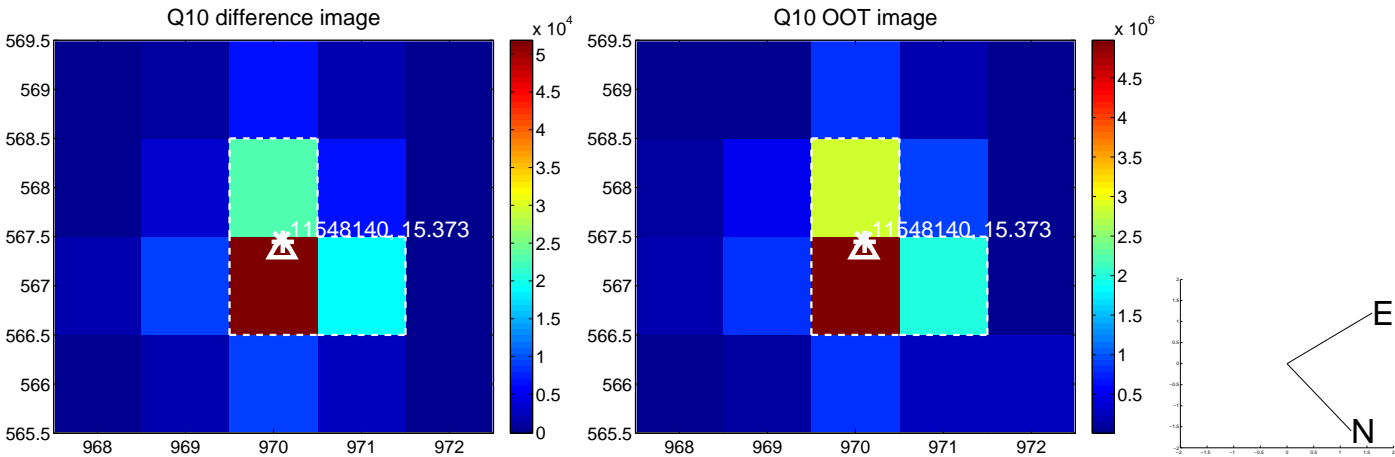
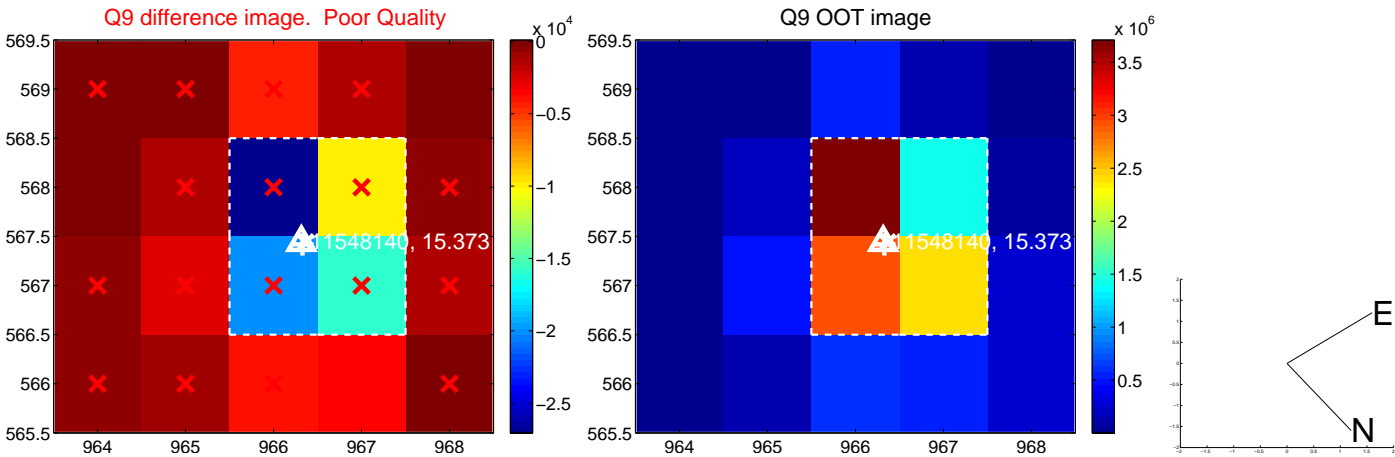
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



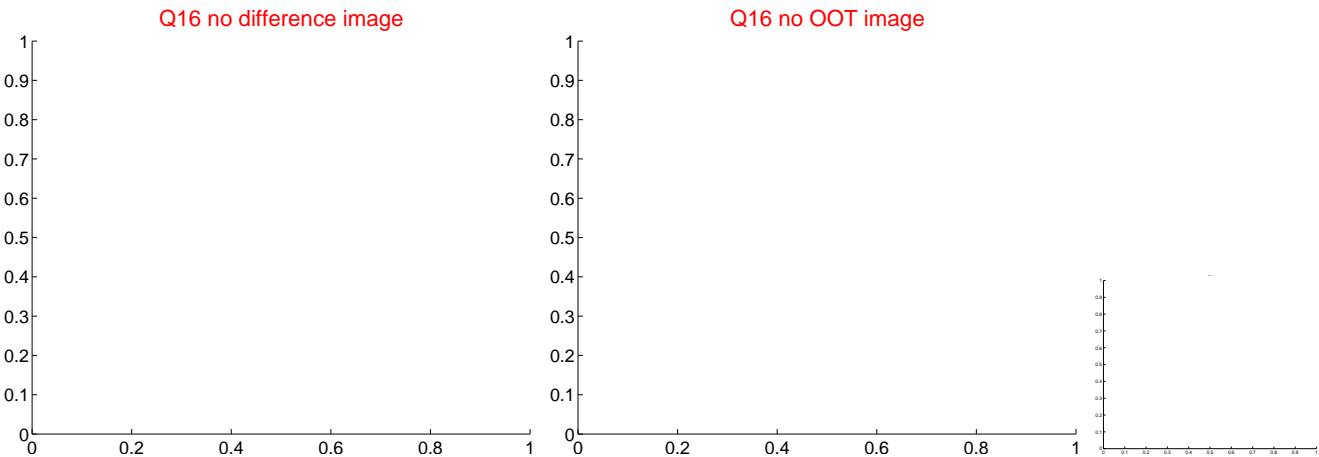
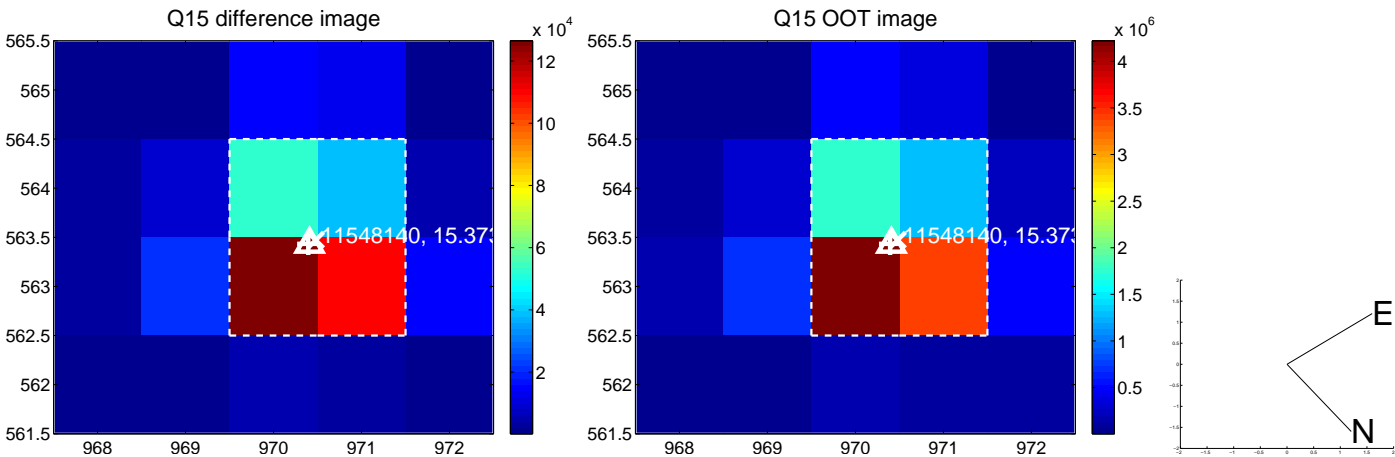
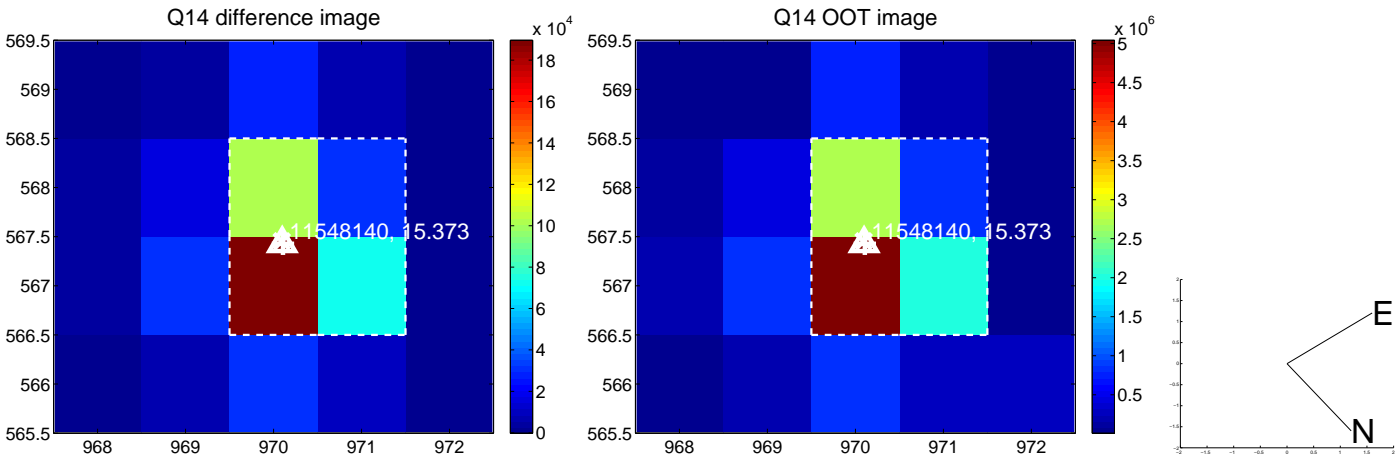
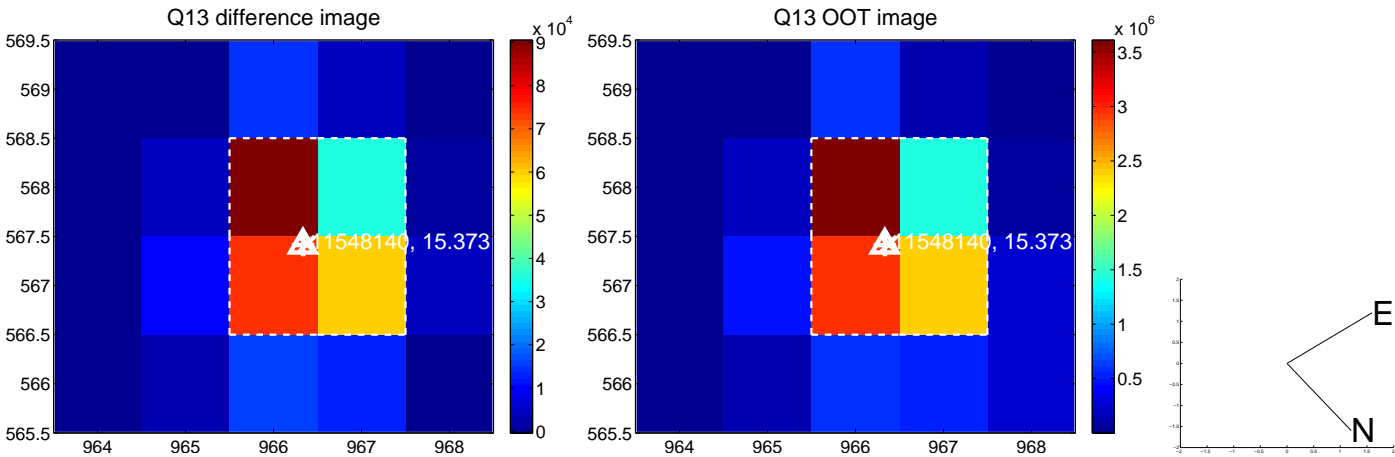
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



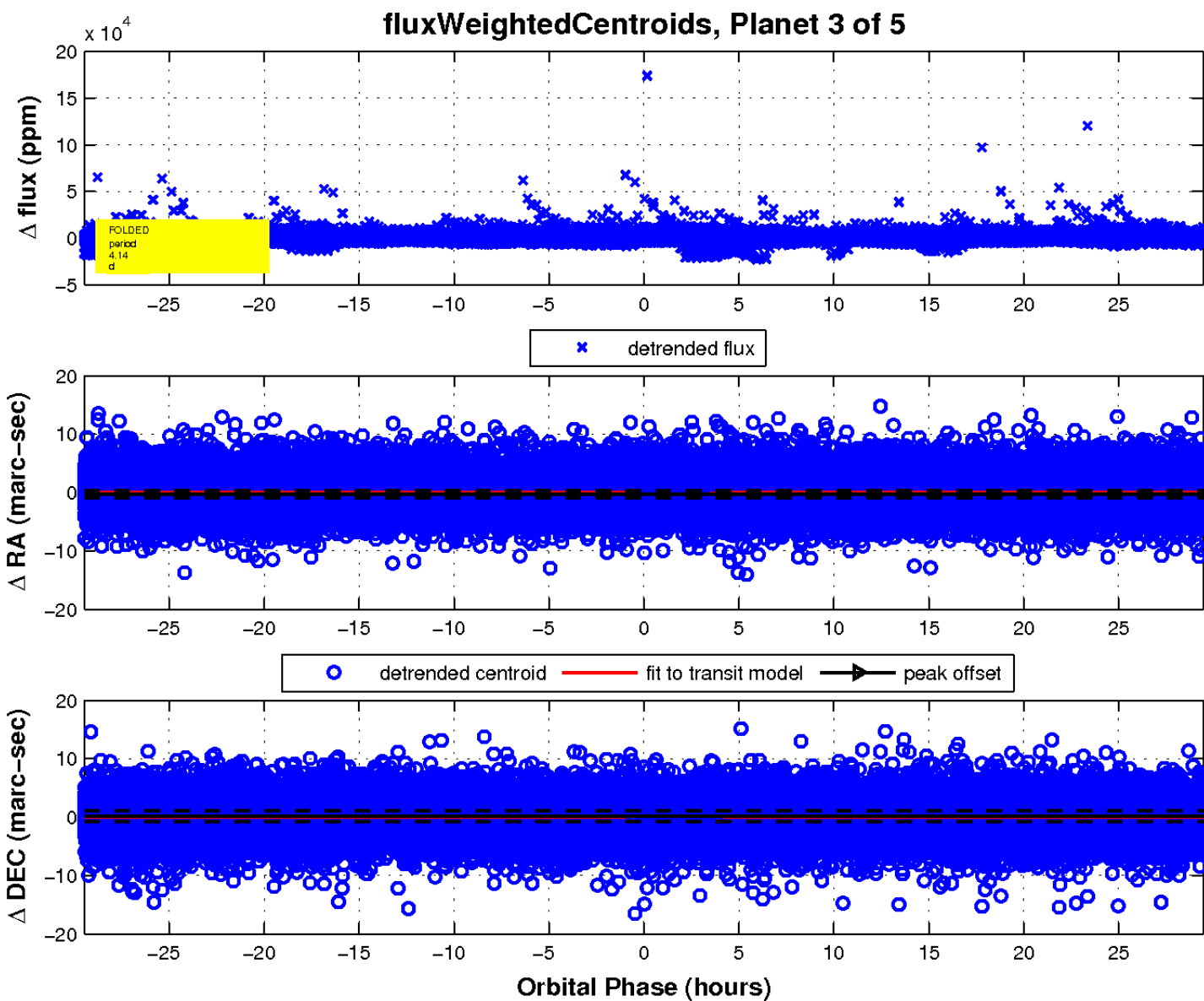
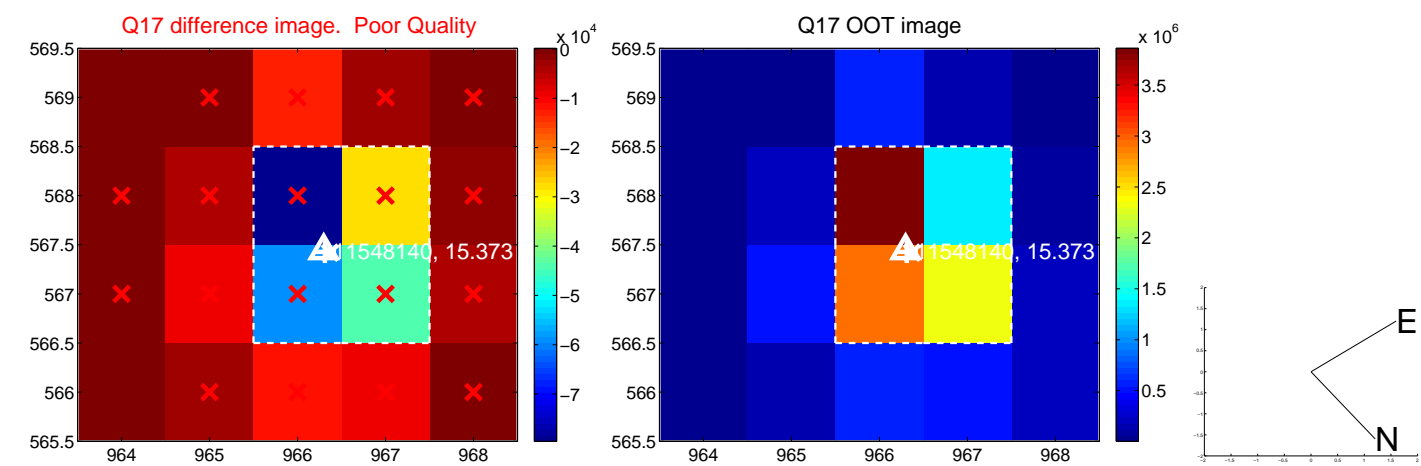
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

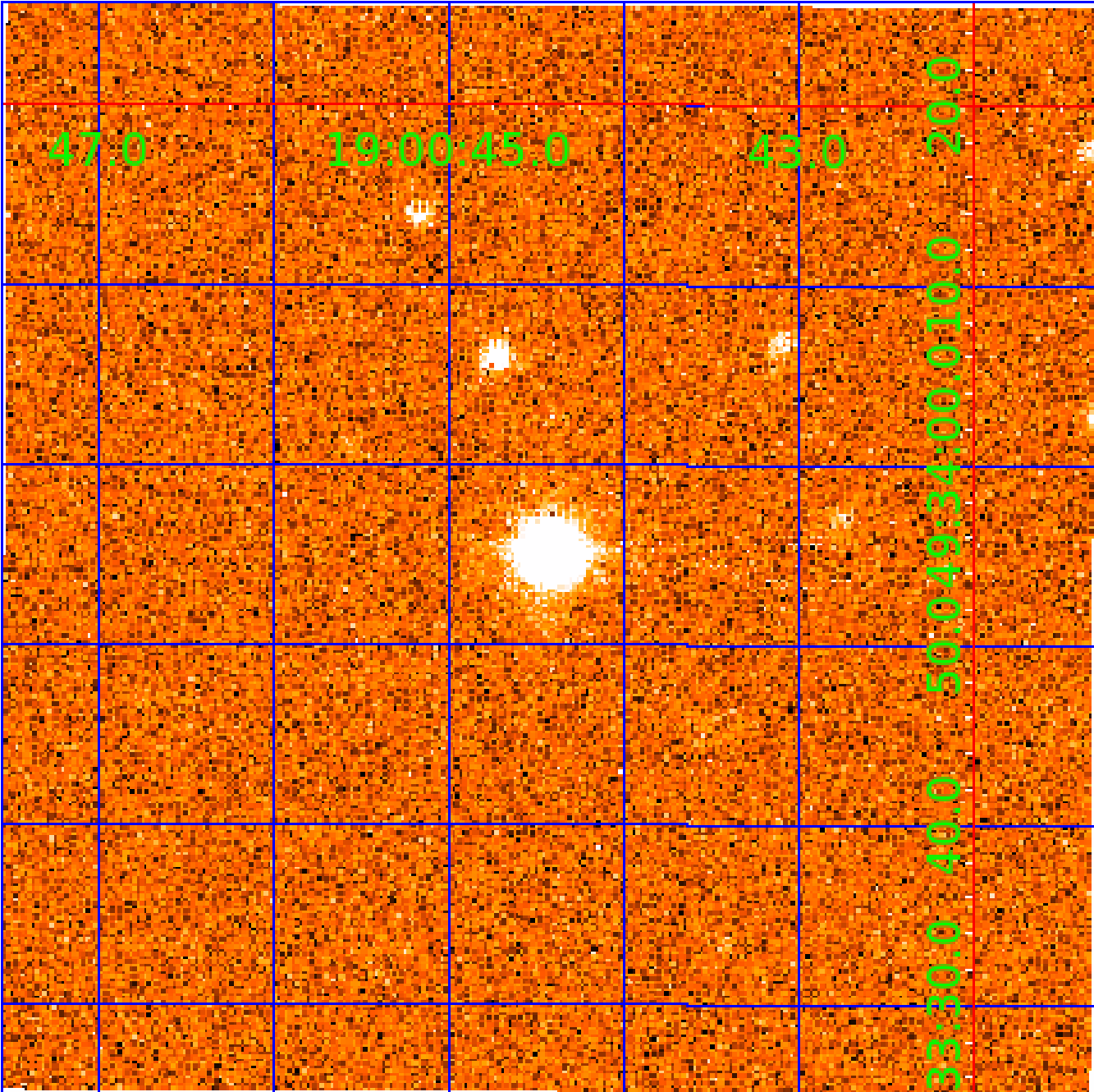


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011548140

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})
011548140-01	OBS	0256.01	1.378635	132.561387	1769.2	0.907	110.8	30.8	0.44	3440	2.03	68.58
011548140-02	OBS	No	1.375607	132.570133	1410.5	5.000	11.5	-1.0	0.44	3440	1.60	68.78
011548140-03	OBS	No	4.139812	132.171679	1210.8	3.500	8.8	-1.0	0.44	3440	1.49	15.83
011548140-04	OBS	No	119.622896	170.927926	2425.9	9.059	8.4	5.7	0.44	3440	2.13	0.18
011548140-05	OBS	No	146.834095	200.640362	4557.5	3.243	9.7	7.2	0.44	3440	2.89	0.14

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011548140-01	OBS	FP	0.00	0	1	0	0	SWEET_EB
011548140-02	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_NOFITS
011548140-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_NOFITS
011548140-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV— MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
011548140-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV— MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—HALO_GHOST

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.

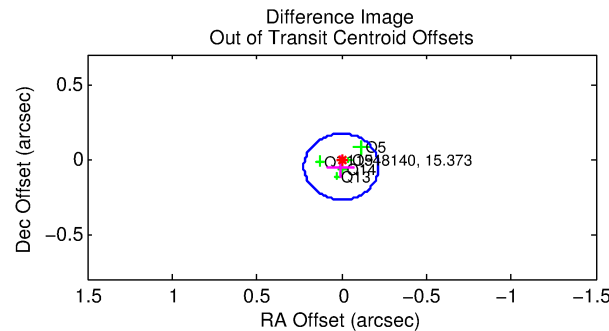
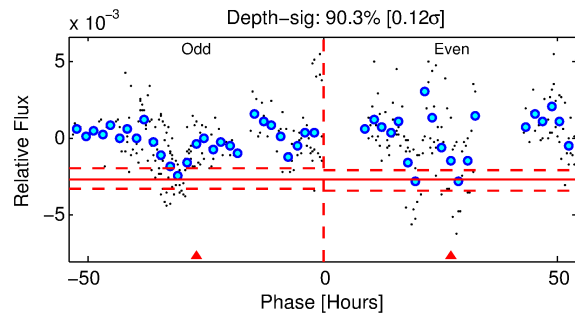
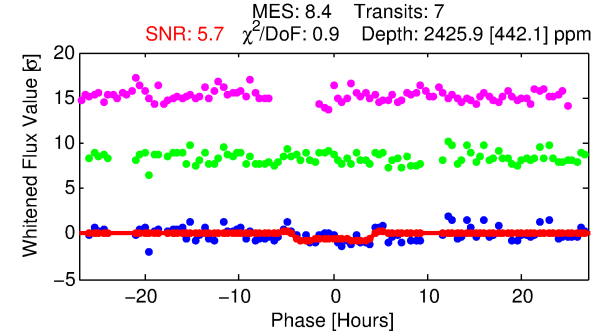
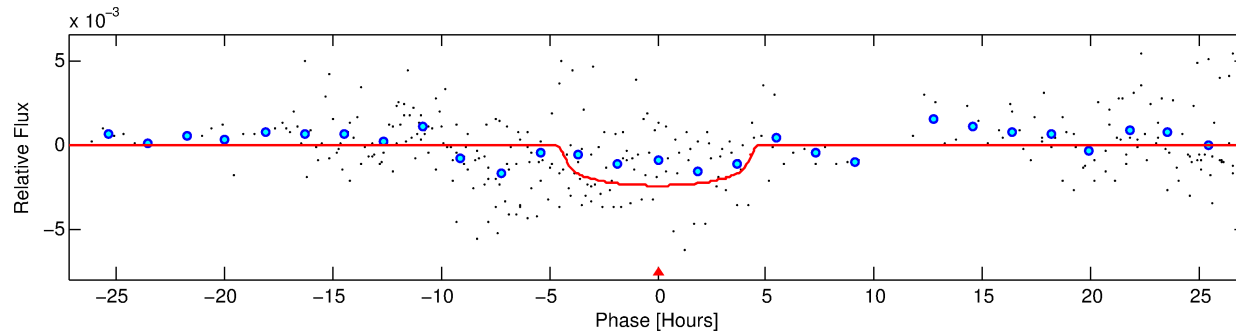
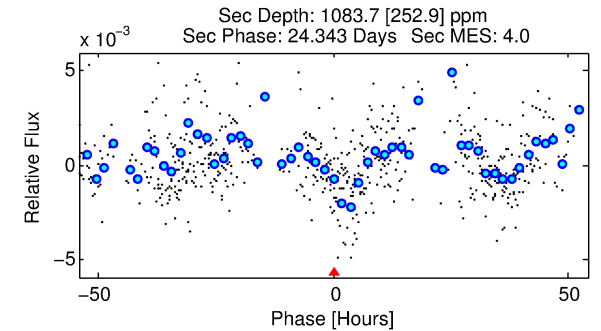
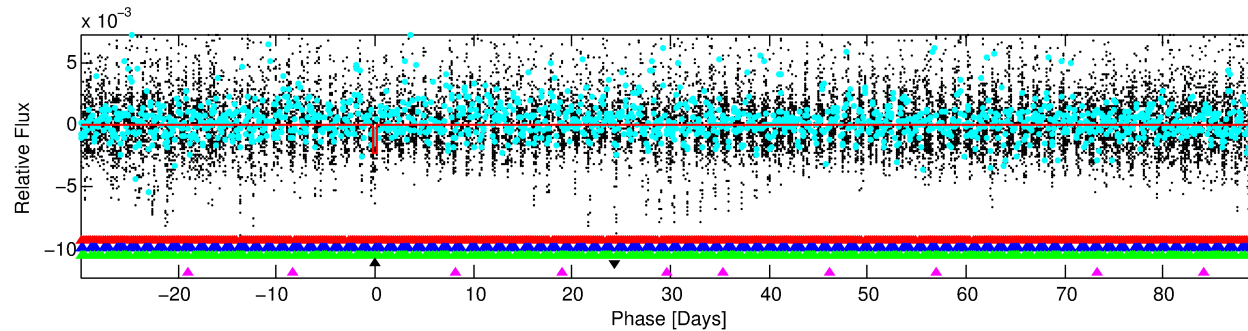
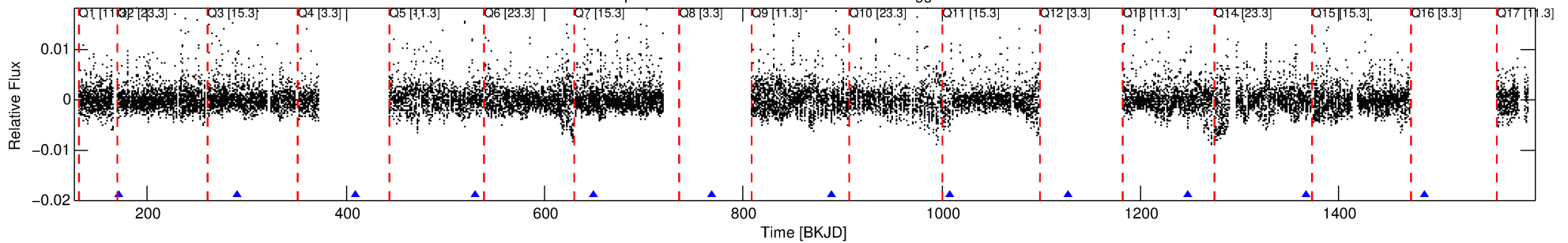
Ephemeris Match Information For 011548140-04

No Significant Match Found

DV One-Page Summary

KIC: 11548140 Candidate: 4 of 5 Period: 119.623 d
KOI: K00256 Corr: No Ephemeris Match

Kp: 15.37 R*: 0.44 Rs Teff: 3440.0 K Logg: 4.82 Fe/H: 0.460



DV Fit Results:

Period = 119.62290 [0.00280] d
Epoch = 170.9279 [0.0216] BKJD
Rp/R* = 0.0445 [0.0287]
a/R* = 100.81 [228.94]
b = 0.30 [6.88]
Seff = 0.18 [0.02]
Teq = 166 [6] K
Rp = 2.13 [1.40] Re
a = 0.3680 [0.0316] AU
Ag = 17804.05 [23428.23] [0.76σ]
Teffp = 2960 [973] K [2.87σ]

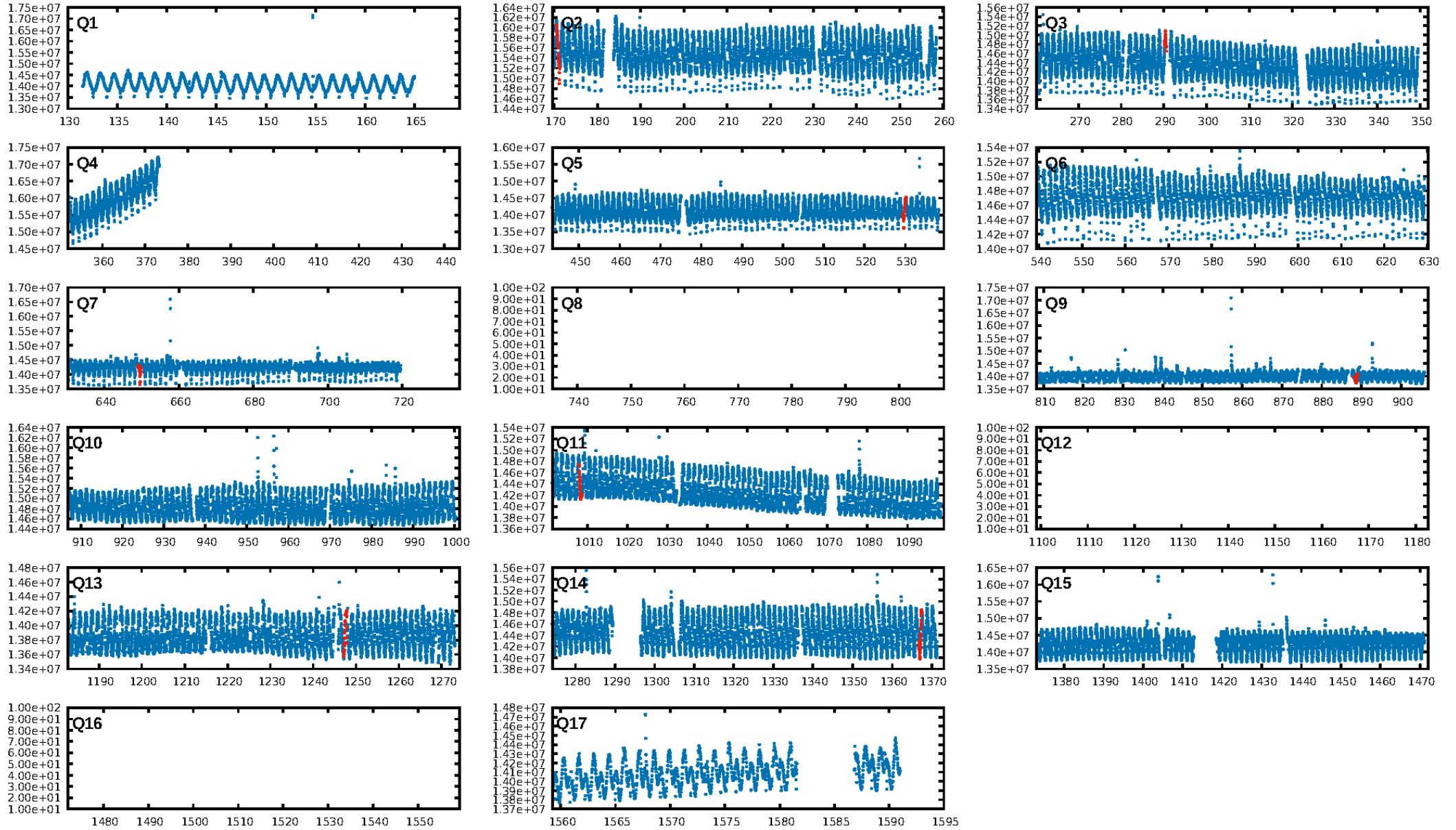
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [285.38σ]
LongPeriod-sig: 100.0% [67.87σ]
ModelChiSquare2-sig: 3.6%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.24e-11
RollingBand-fgt: 1.00 [7/7]
GhostDiagnostic-chr: 0.7424
Centroid-sig: 12.5%
Centroid-so: 0.839 arcsec [1.89σ]
OotOffset-rm: 0.050 arcsec [0.68σ]
KicOffset-rm: 0.163 arcsec [1.98σ]
OotOffset-st: 1/1/0/3 [5]
KicOffset-st: 1/1/0/3 [5]
DiffImageQuality-fgm: 0.80 [4/5]
DiffImageOverlap-fno: 0.00 [0/5]

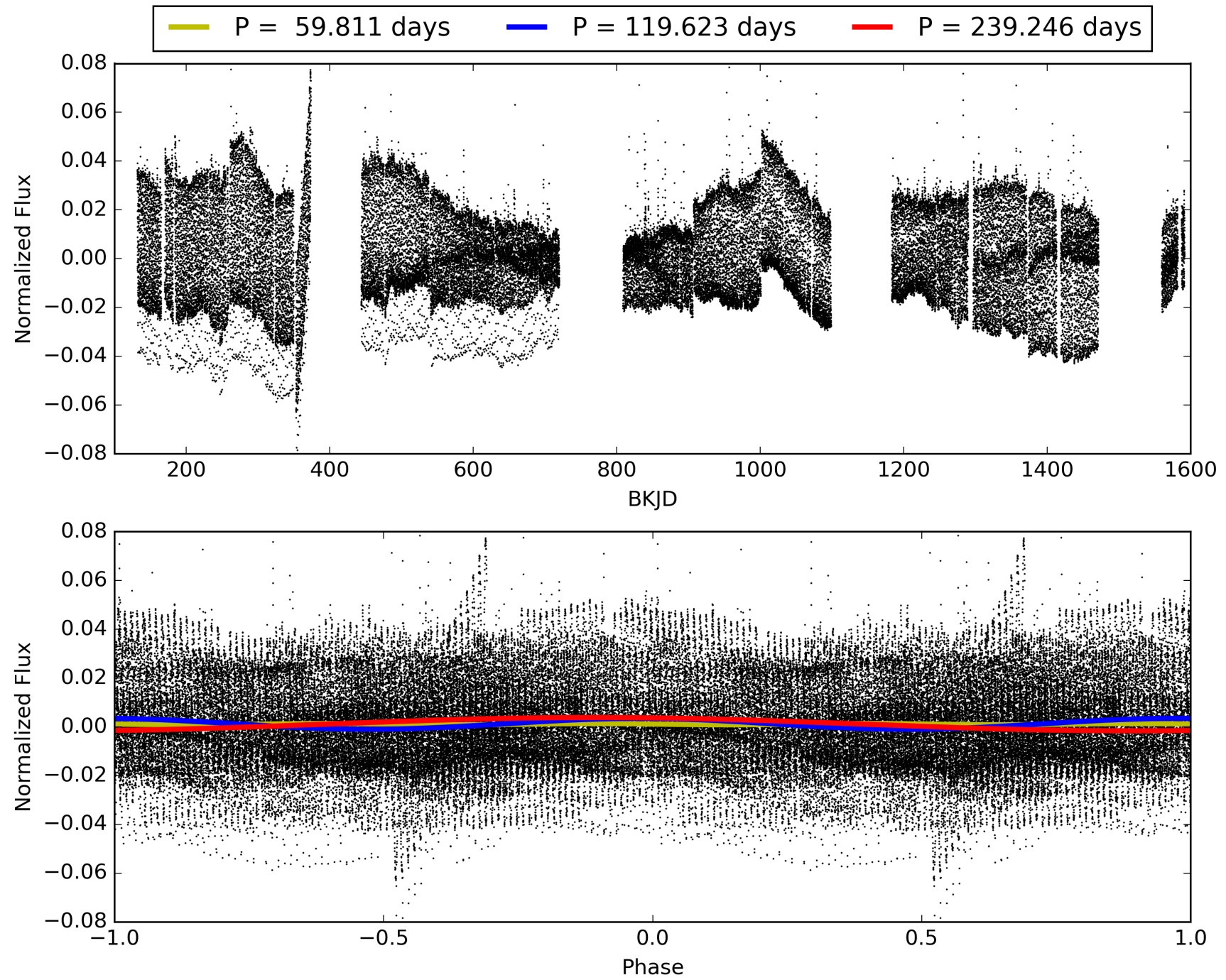
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:38:19 Z

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

TCE 011548140-04, PDC Light Curves

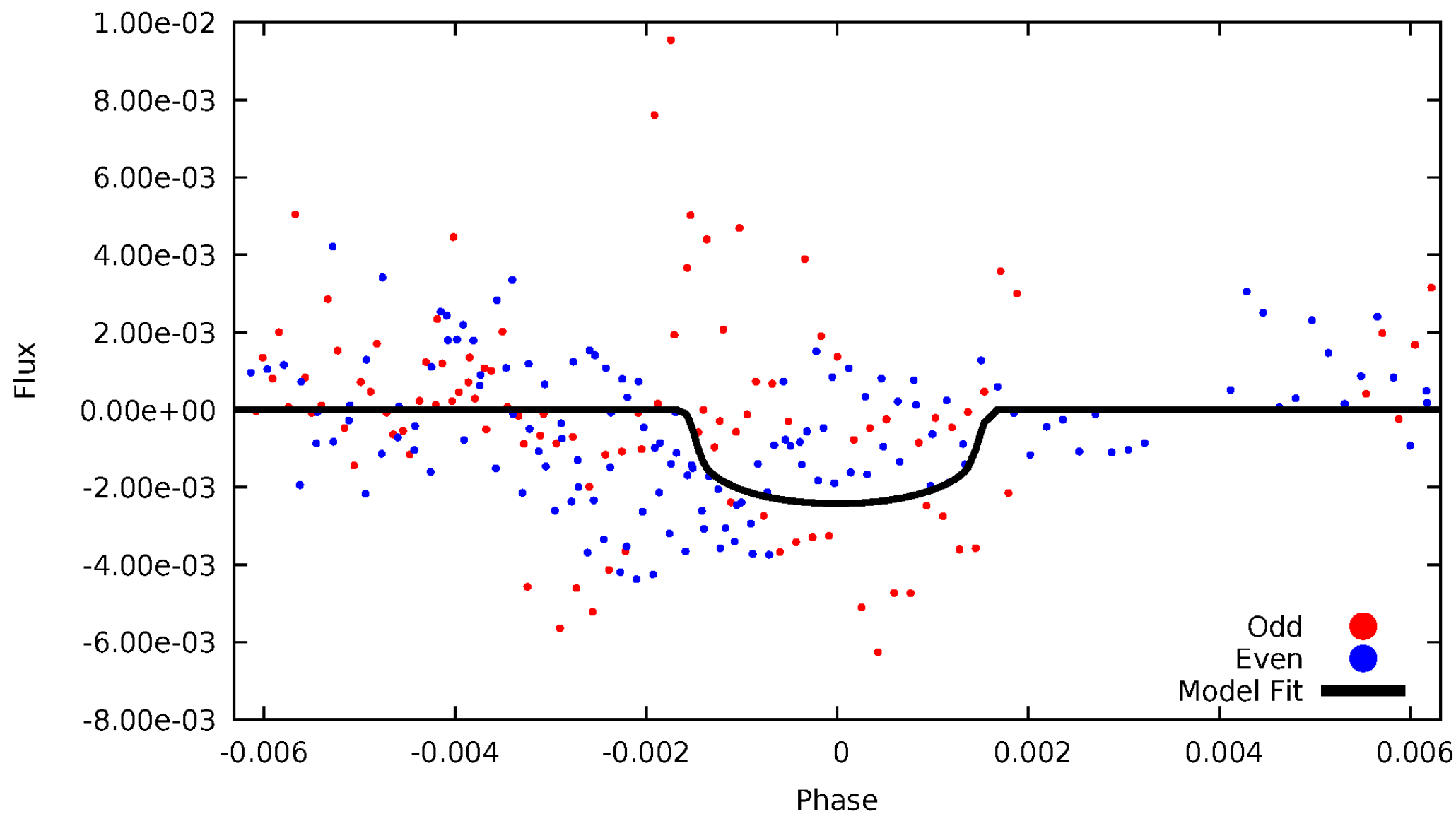


TCE 011548140-04



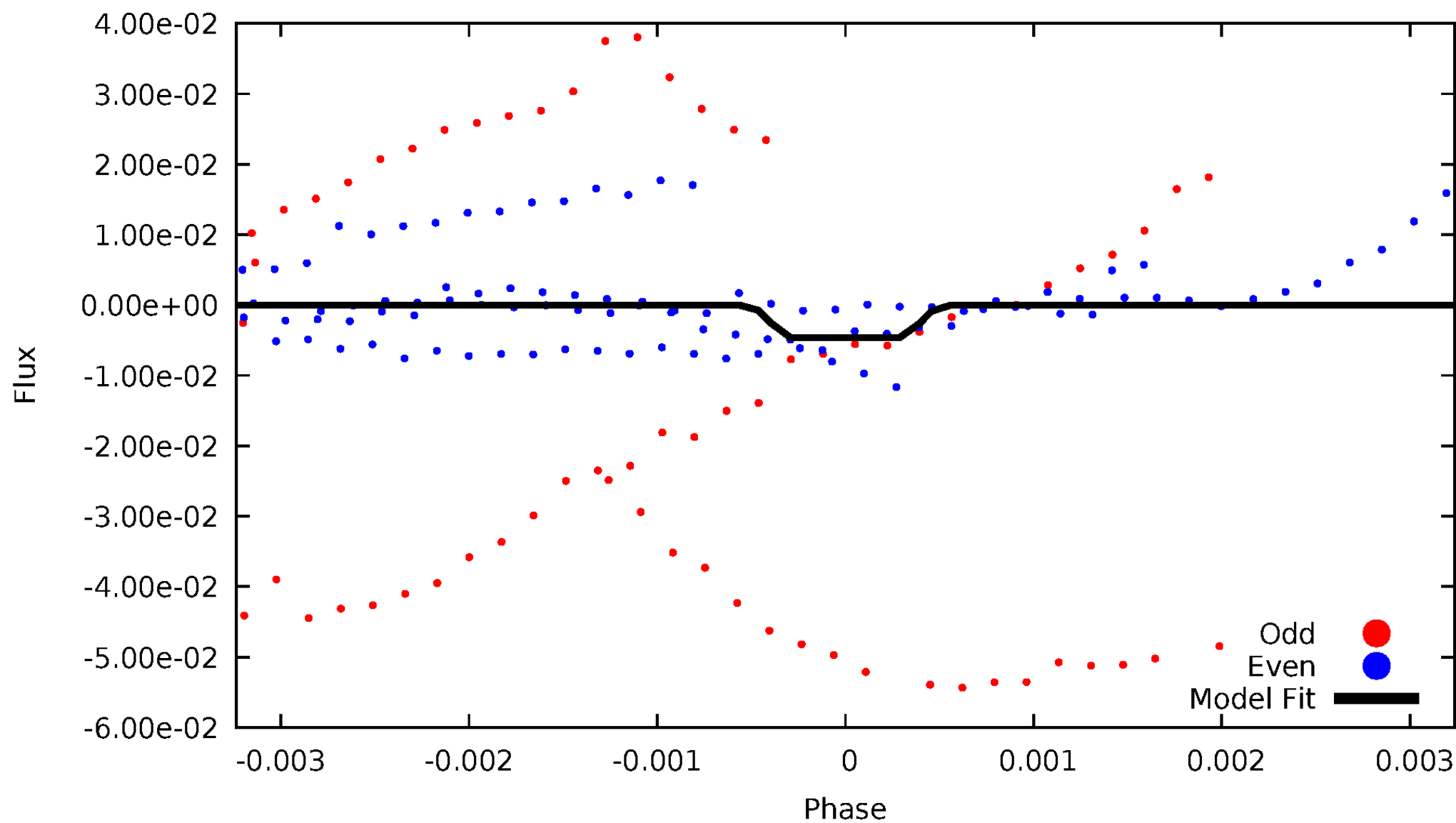
DV Odd/Even

TCE 011548140-04



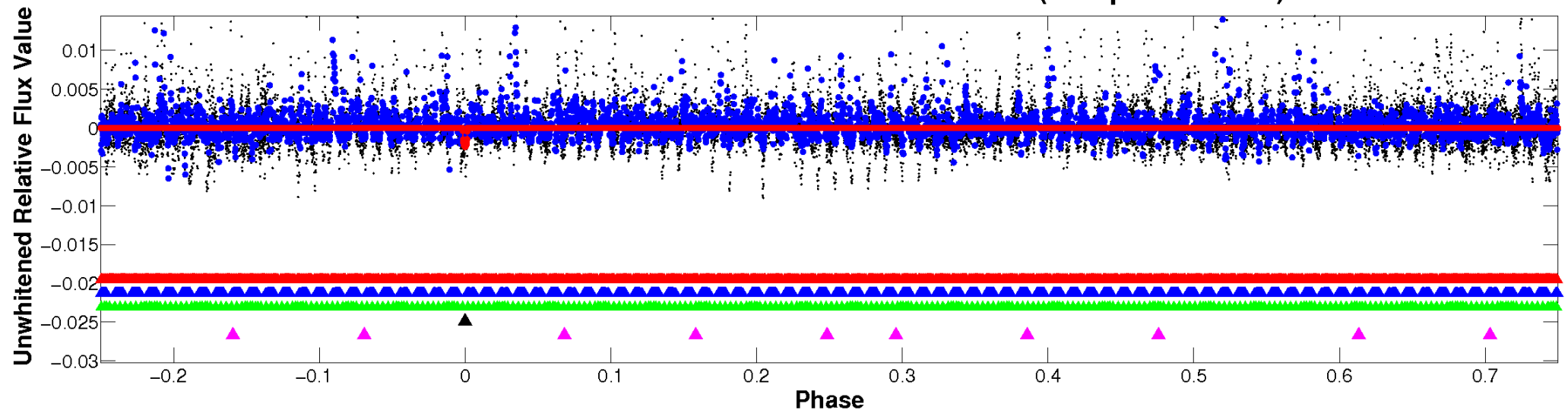
ALT Odd/Even

TCE 011548140-04

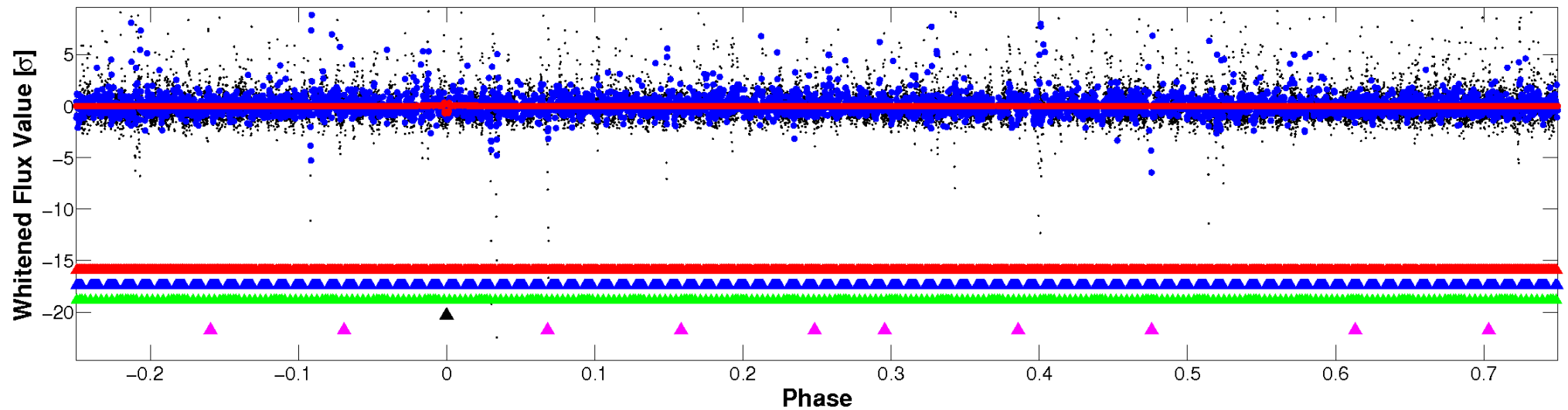


Non-Whitened Vs. Whitened Light Curve

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

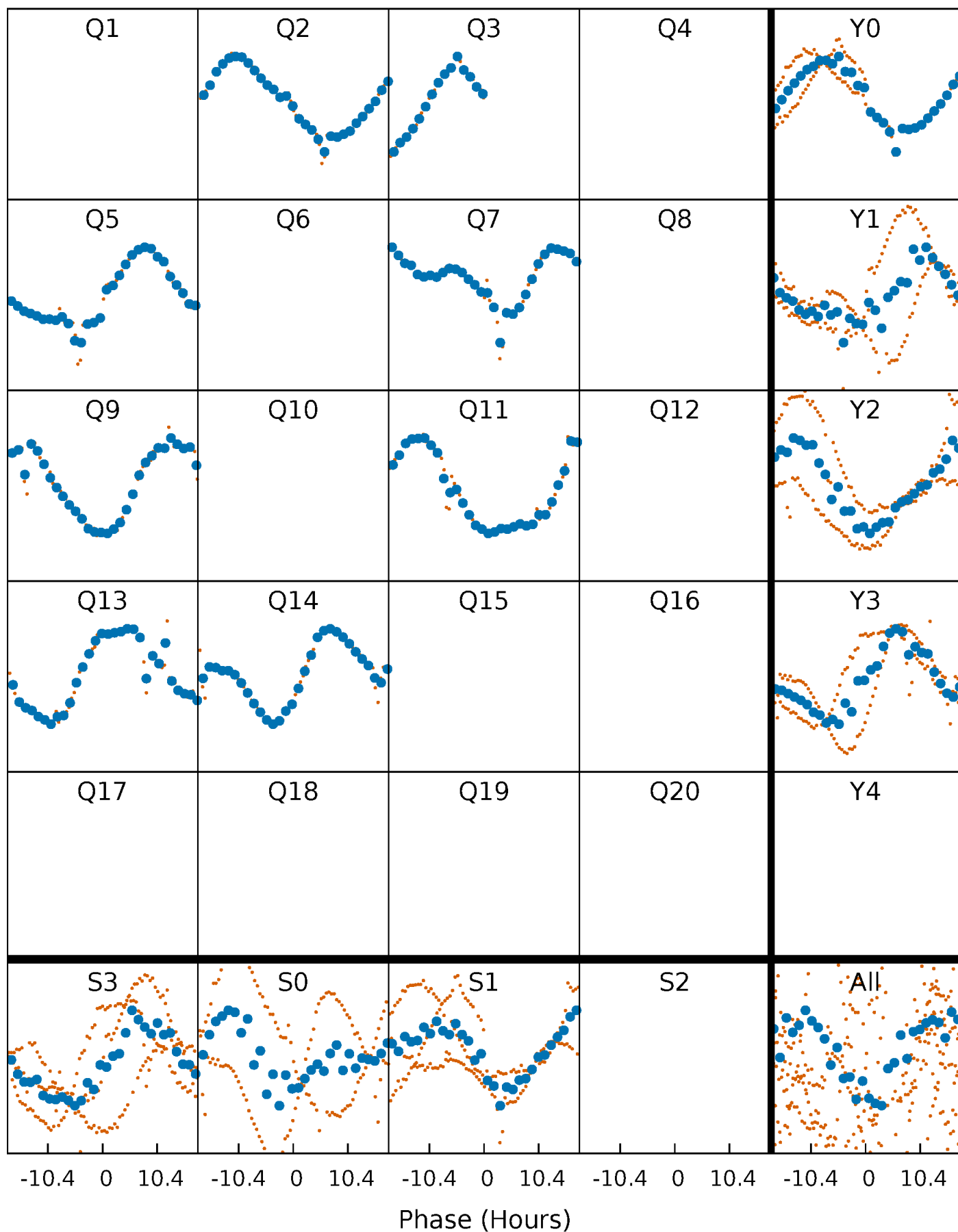


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



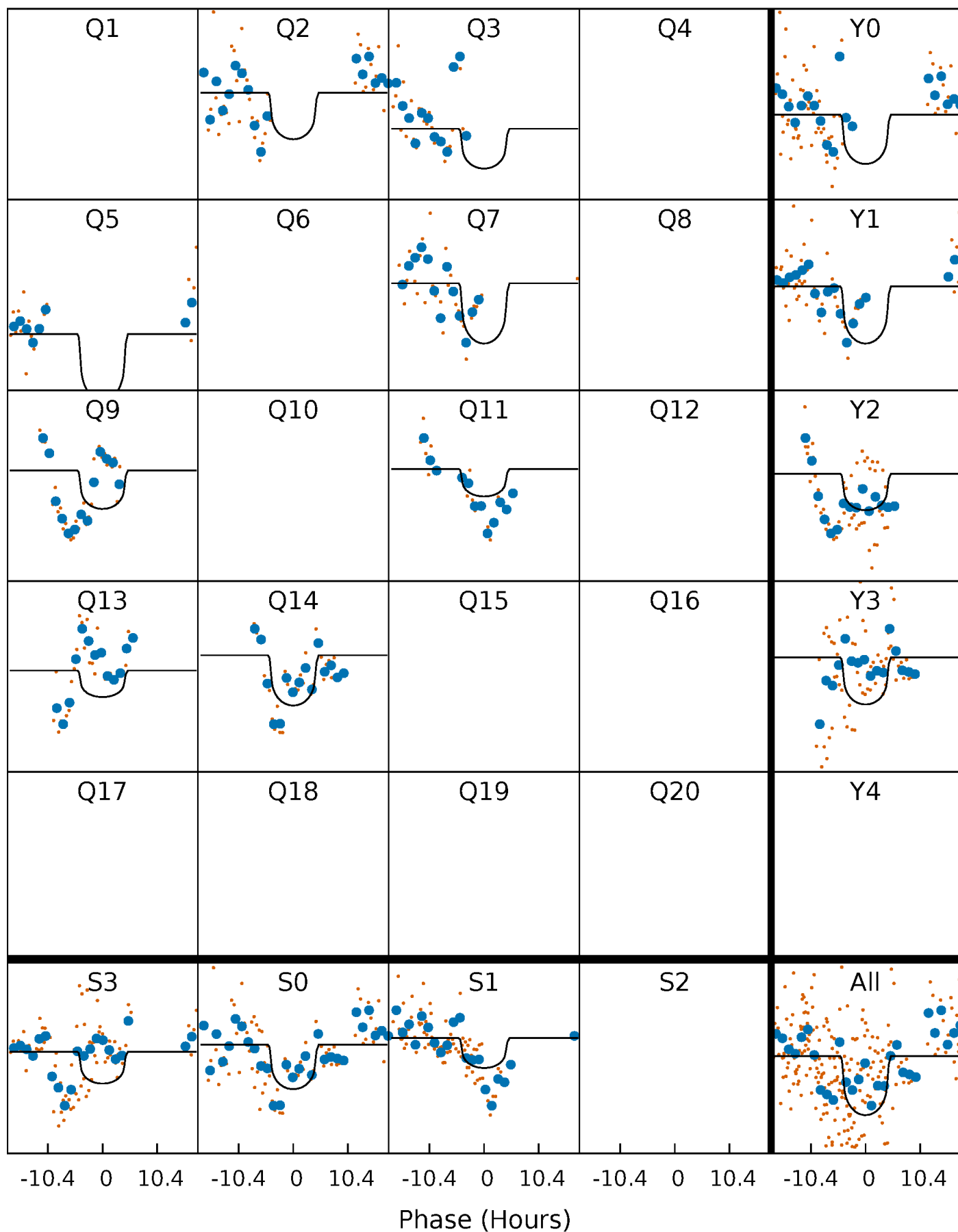
PDC Quarter-Phased Transit Curves

TCE 011548140-04 $P=119.622896$ Days $T_0=170.927926$ (BKJD)



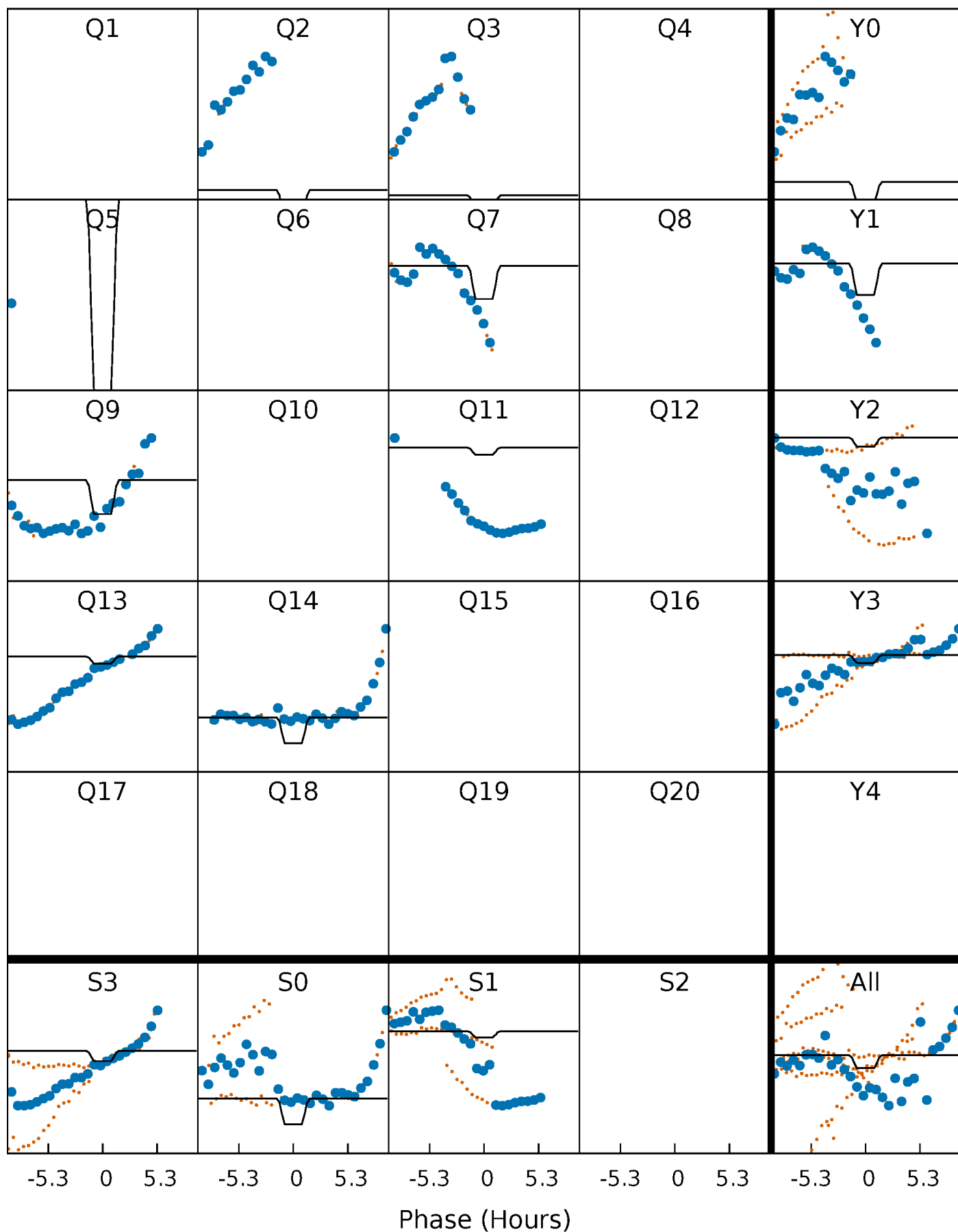
DV Quarter-Phased Transit Curves

TCE 011548140-04 $P=119.622896$ Days $T_0=170.927926$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

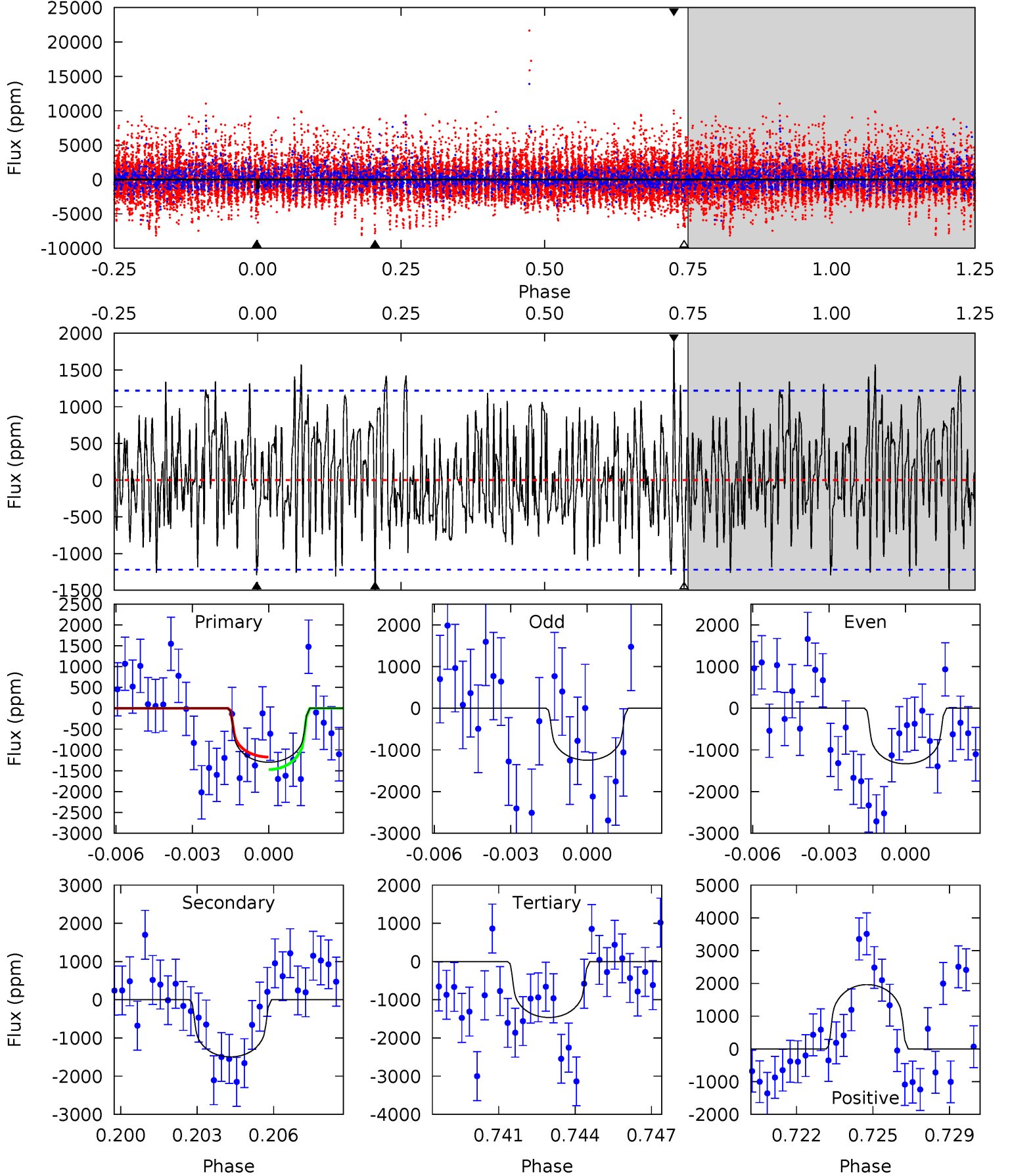
TCE 011548140-04 P=119.631683 Days $T_0=170.842955$ (BKJD)



DV Model-Shift Uniqueness Test

011548140-04, P = 119.622896 Days, E = 51.305030 Days

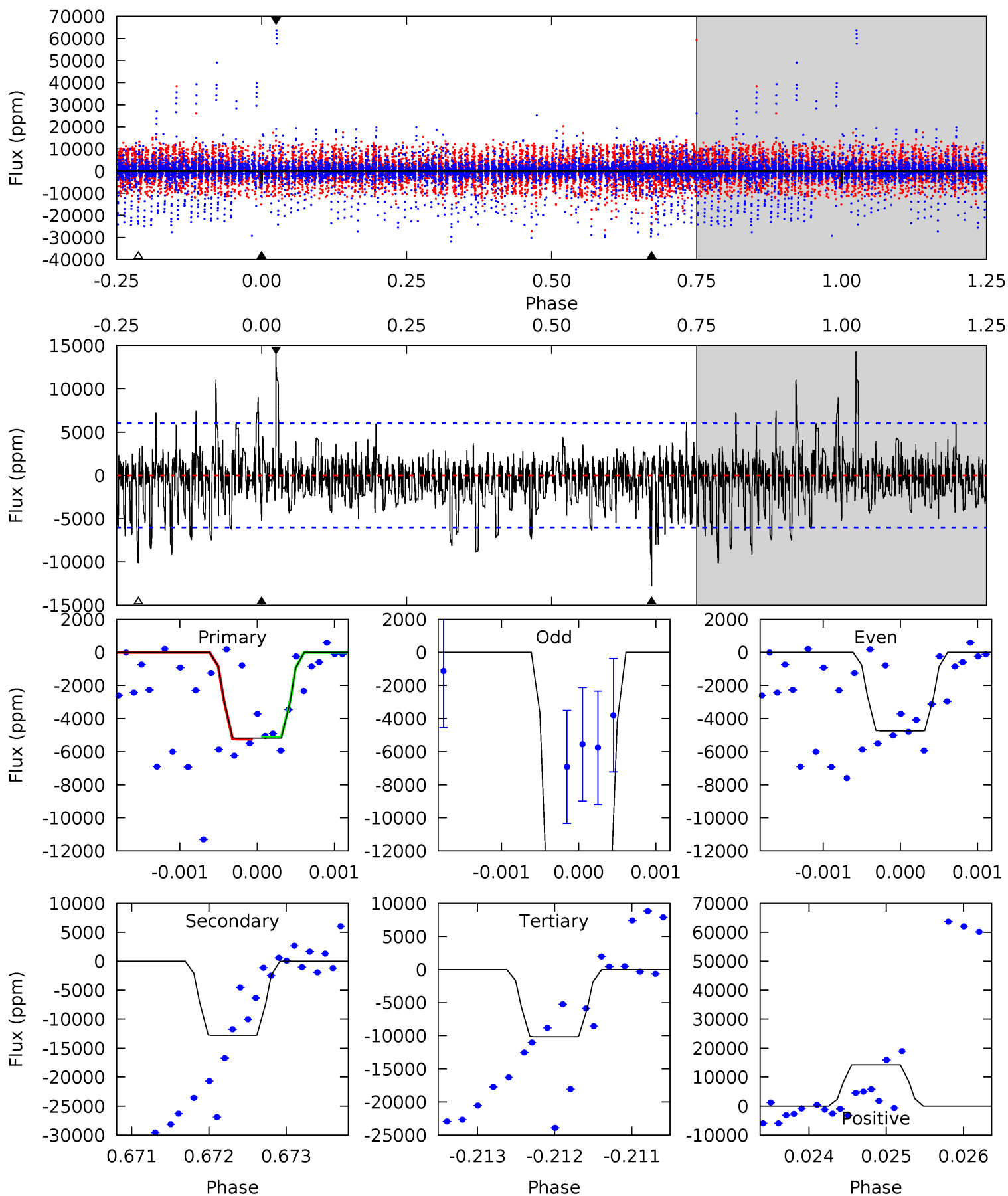
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.57	6.43	6.30	8.44	5.24	2.95	2.28	-0.72	-2.87	0.14	-2.01	0.17	1.12	0.57	0.65



Alt Model-Shift Uniqueness Test

011548140-04, P = 119.631683 Days, E = 51.211272 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.73	11.6	9.24	13.0	5.47	3.31	1.60	-4.51	-8.29	2.40	-1.38	6.18	2.21	0.53	0.05



Stellar Parameters For KIC 011548140

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	3440^{+68}_{-75}	$4.820^{+0.044}_{-0.040}$	$0.460^{+0.050}_{-0.150}$	$0.439^{+0.035}_{-0.052}$	$0.465^{+0.032}_{-0.060}$	$7.721^{+2.043}_{-1.247}$
	+2%/-2%	+1%/-1%	+11%/-33%	+8%/-12%	+7%/-13%	+26%/-16%
Source	SPE70	SPE5	SPE70	DSEP		

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

Secondary Eclipse Parameters for KIC 011548140-04 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1495 ± 232	$2.28^{+1.35}_{-1.24}$	231^{+7}_{-7}	3240^{+919}_{-416}	21549^{+78296}_{-13282}
Alt.	-12780 ± 1098	$3.17^{+1.50}_{-1.35}$	231^{+6}_{-7}	4111^{+991}_{-507}	$94635^{+194020}_{-50436}$

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 $A_{obs} \gg 1.0$

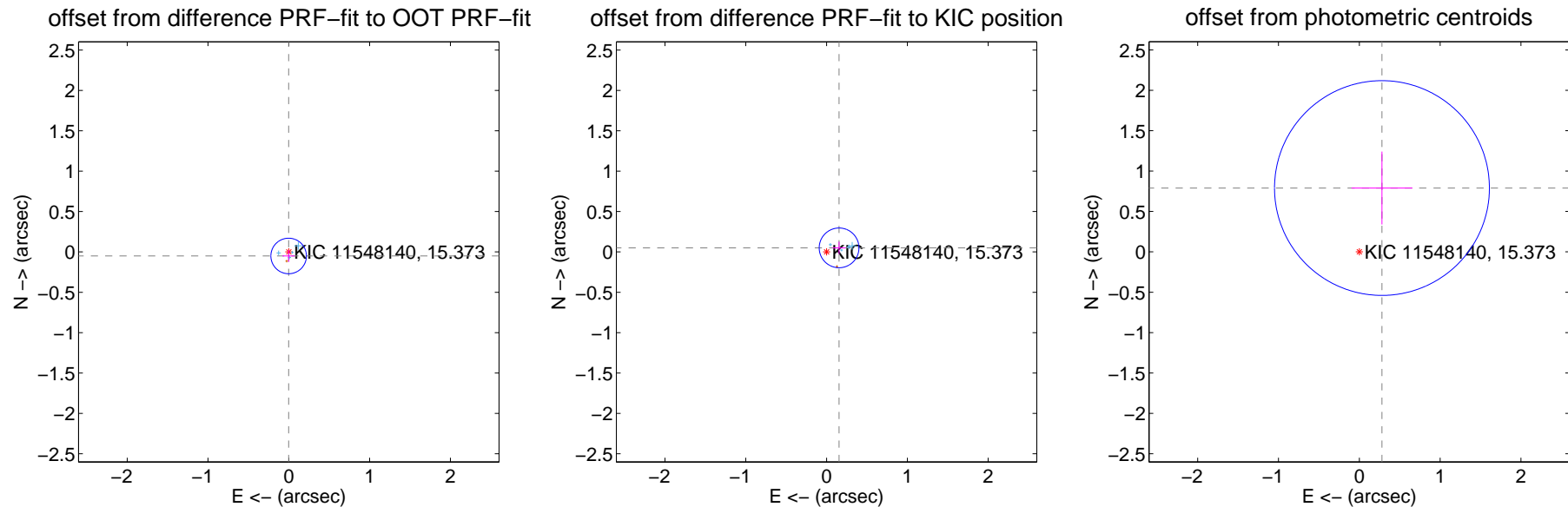
DV Centroid Data

Supplemental centroid analysis for 011548140-04. Kepler magnitude: 15.37. Transit SNR 5.65

There are 4 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.050 ± 0.073	0.68	0.002 ± 0.076	-0.050 ± 0.073
PRF-fit source offset from KIC position	0.163 ± 0.082	1.98	-0.155 ± 0.081	0.050 ± 0.077
photometric centroid source offset	0.84 ± 0.44	1.89	-0.28 ± 0.38	0.79 ± 0.45

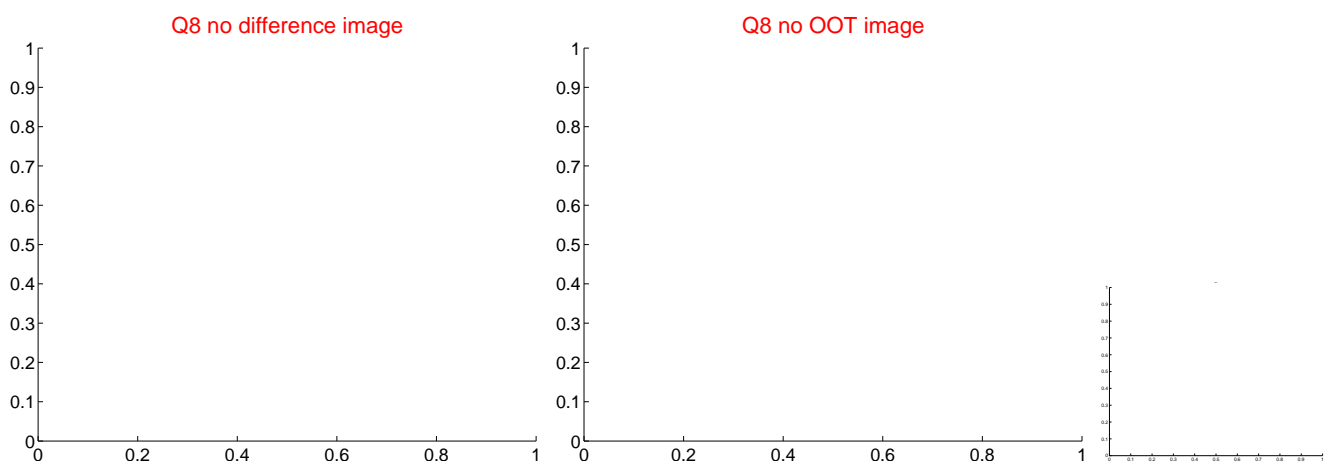
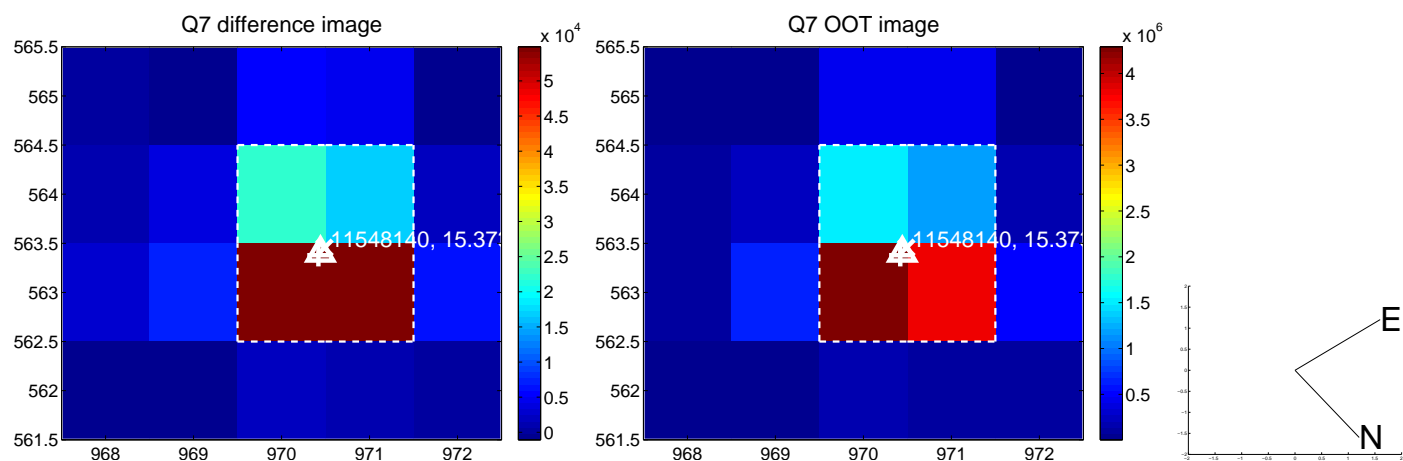
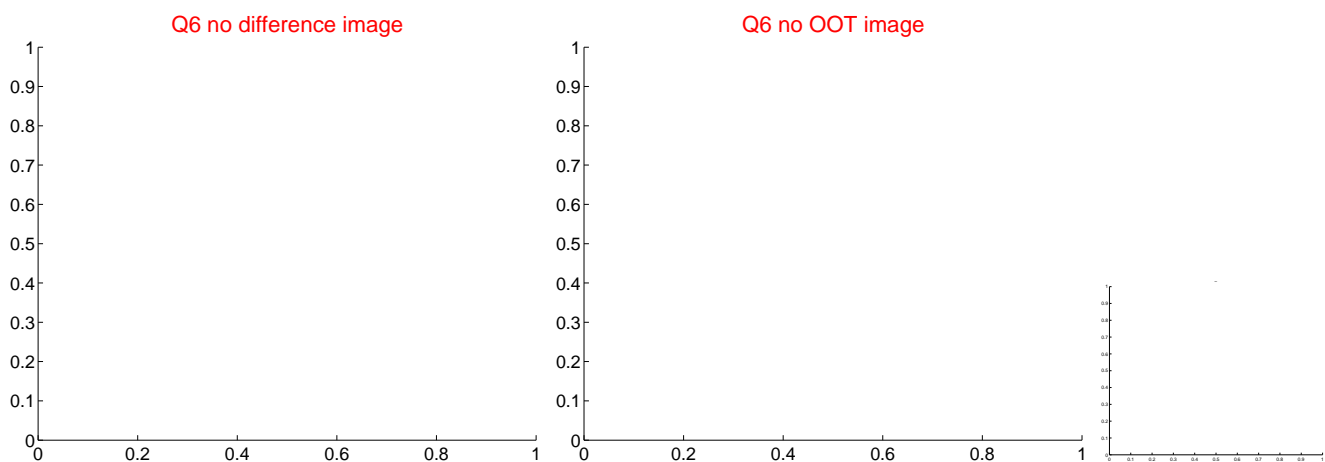
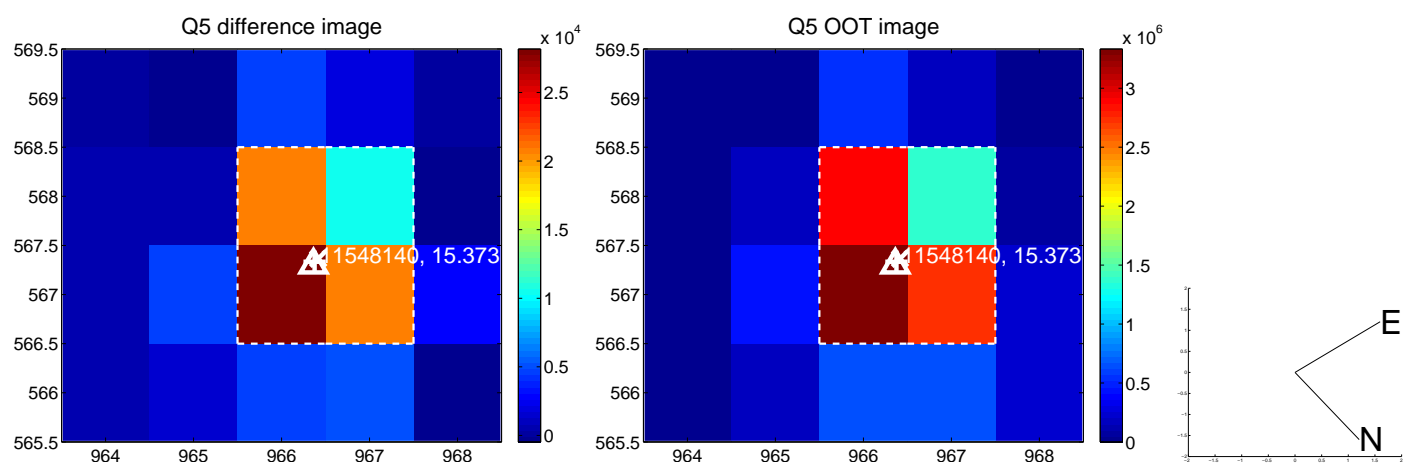


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

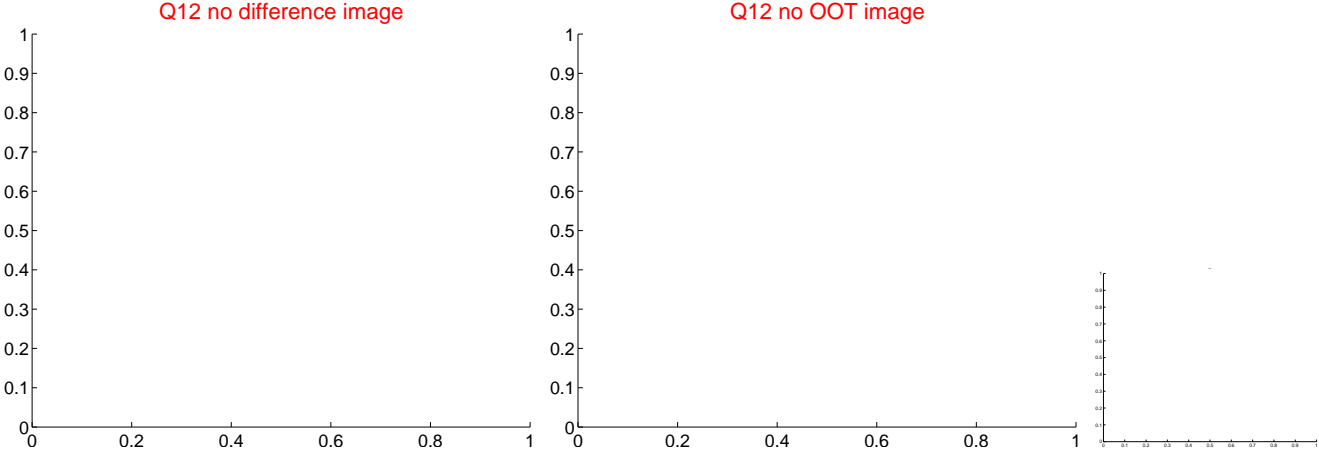
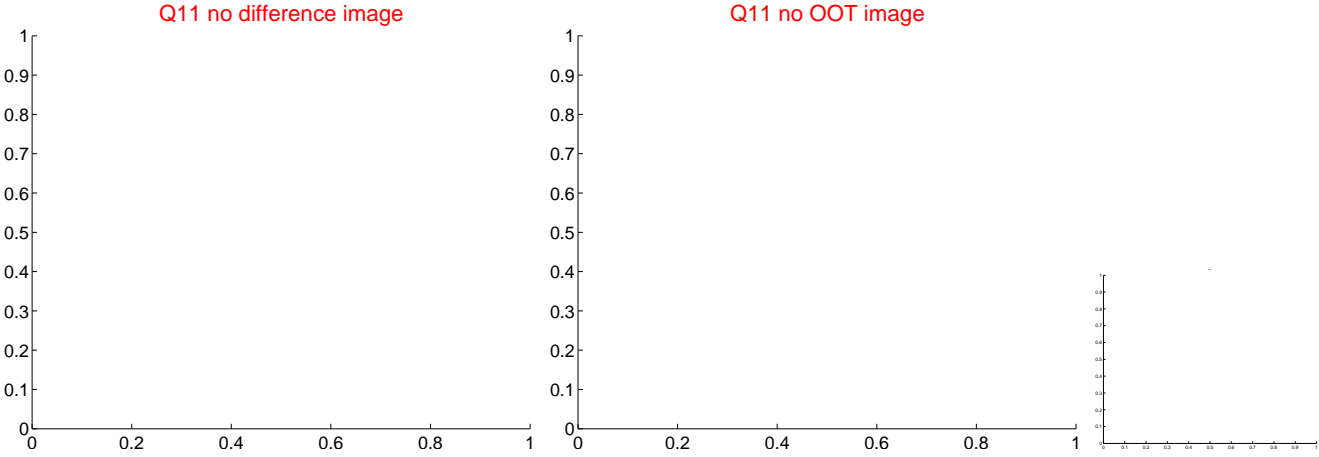
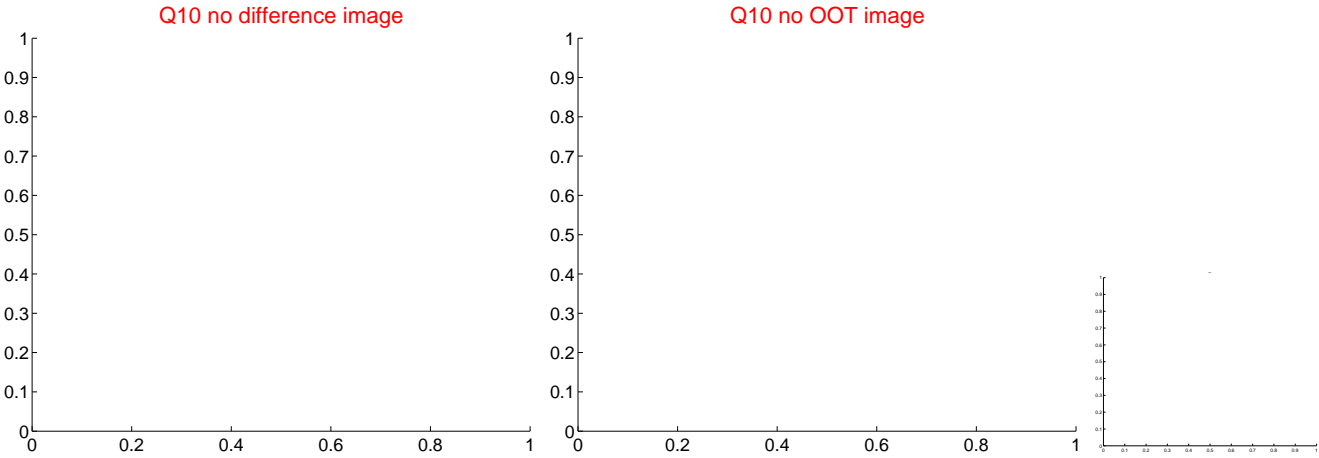
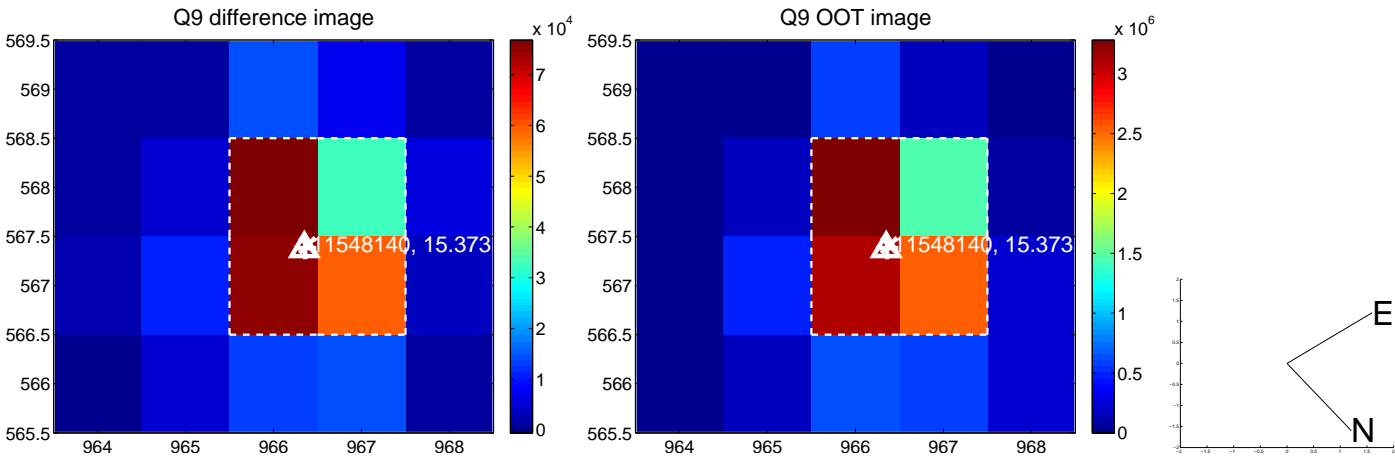
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



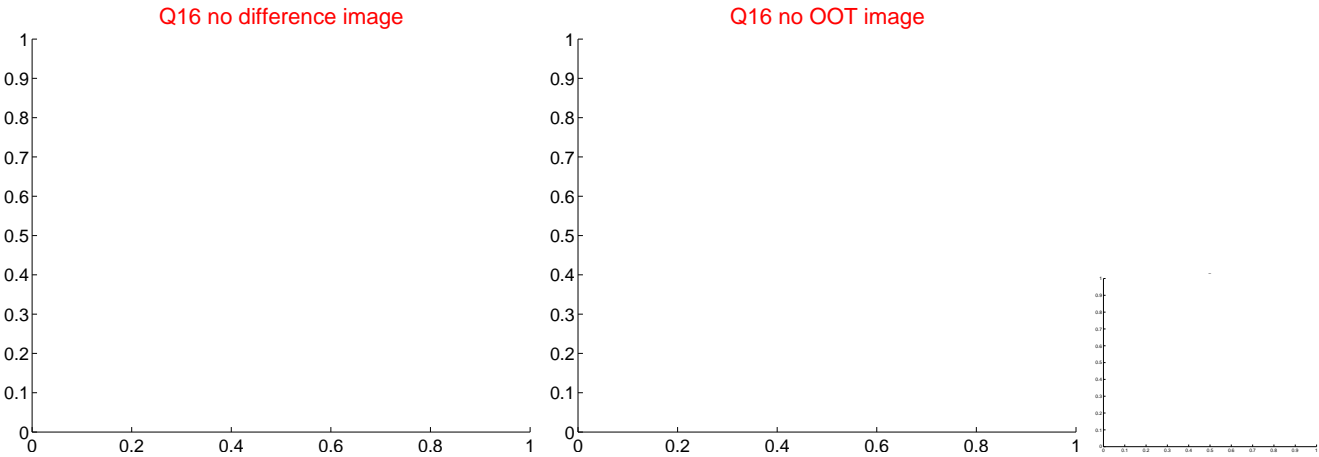
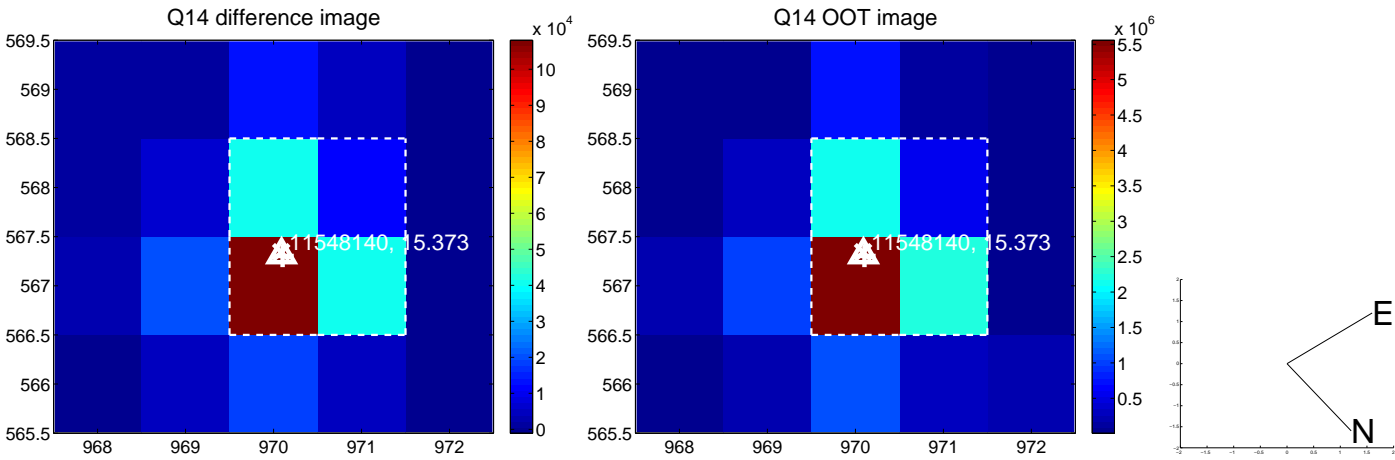
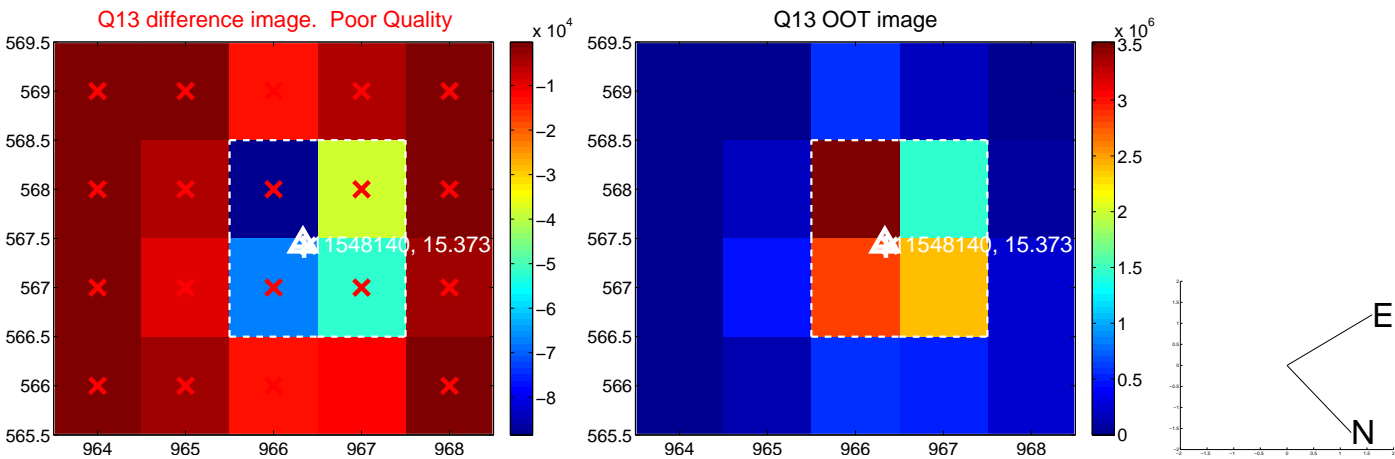
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



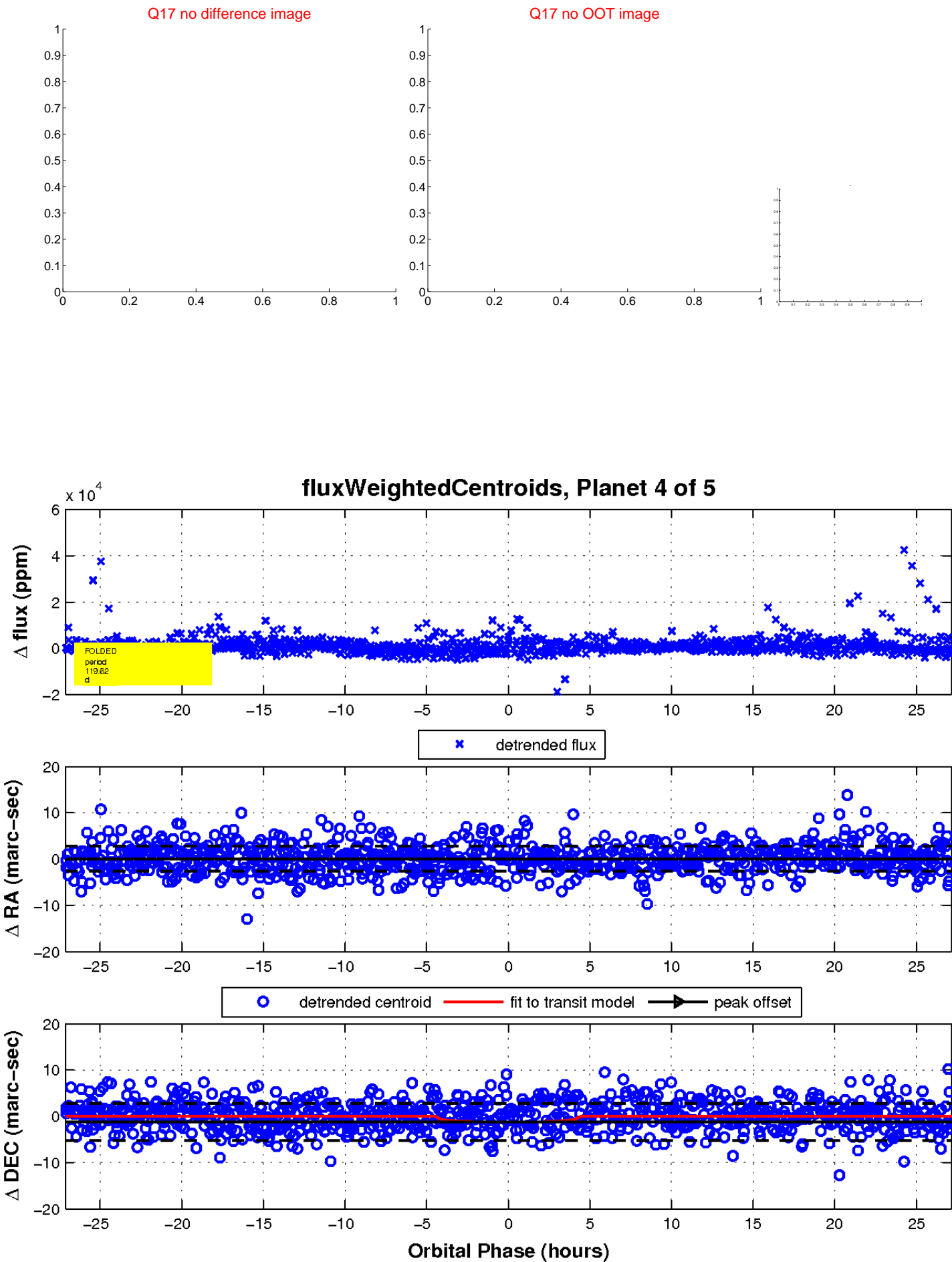
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

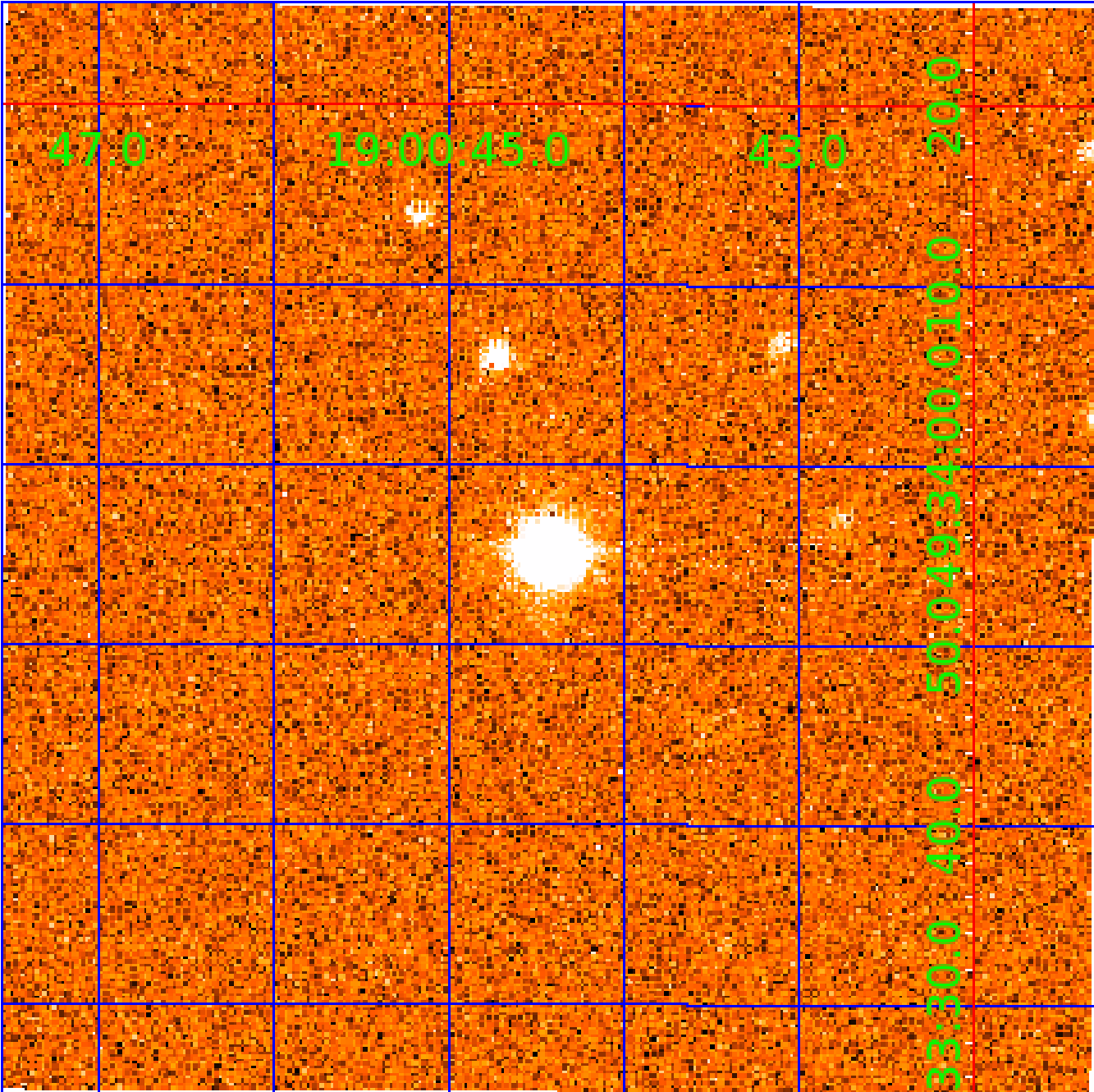


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011548140

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})
011548140-01	OBS	0256.01	1.378635	132.561387	1769.2	0.907	110.8	30.8	0.44	3440	2.03	68.58
011548140-02	OBS	No	1.375607	132.570133	1410.5	5.000	11.5	-1.0	0.44	3440	1.60	68.78
011548140-03	OBS	No	4.139812	132.171679	1210.8	3.500	8.8	-1.0	0.44	3440	1.49	15.83
011548140-04	OBS	No	119.622896	170.927926	2425.9	9.059	8.4	5.7	0.44	3440	2.13	0.18
011548140-05	OBS	No	146.834095	200.640362	4557.5	3.243	9.7	7.2	0.44	3440	2.89	0.14

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011548140-01	OBS	FP	0.00	0	1	0	0	SWEET_EB
011548140-02	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_NOFITS
011548140-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_NOFITS
011548140-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV— MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
011548140-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV— MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—HALO_GHOST

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.

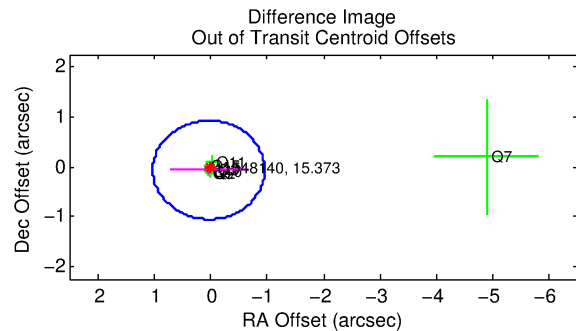
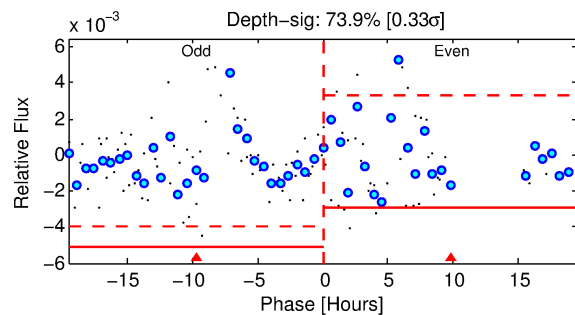
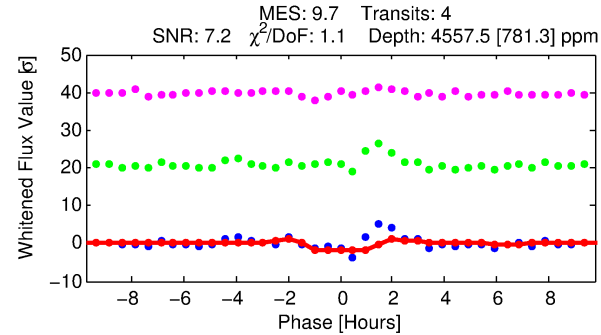
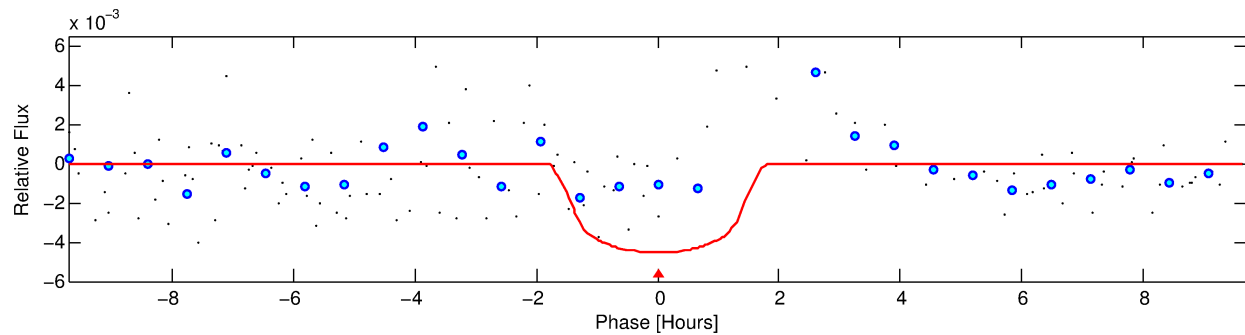
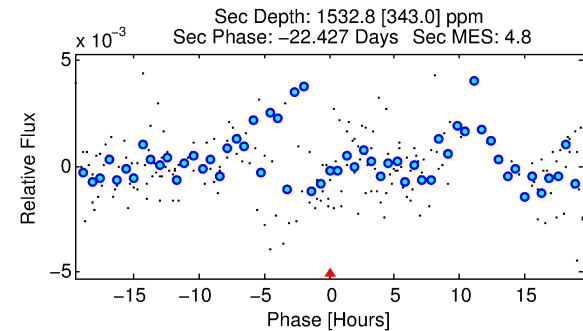
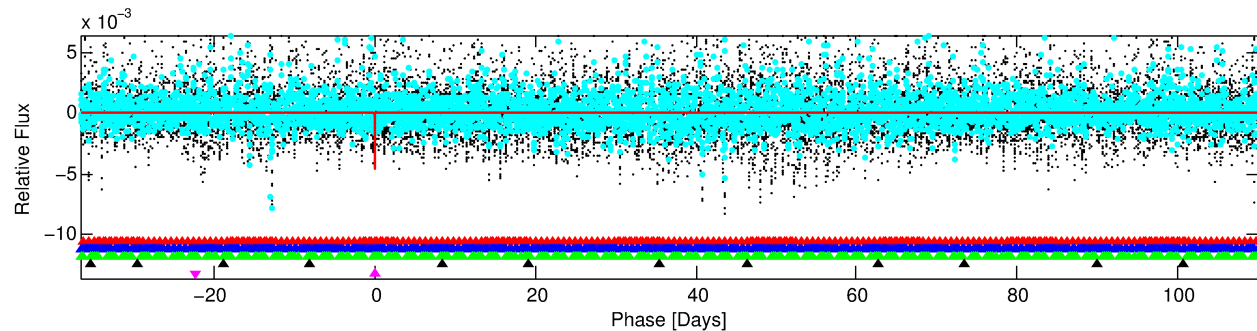
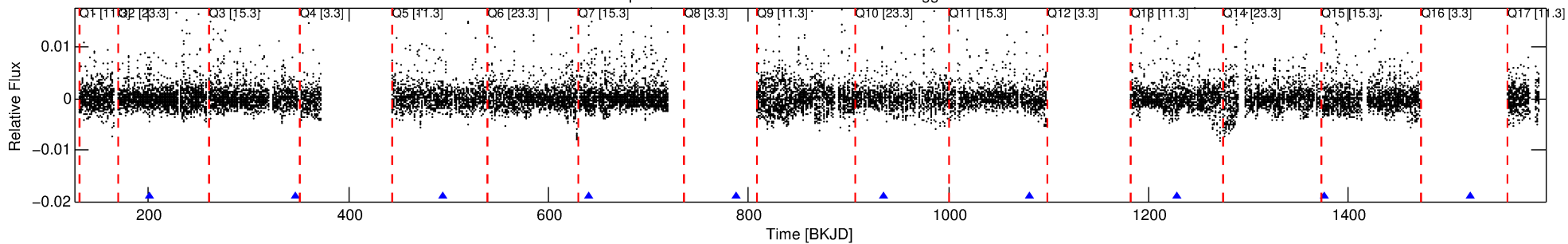
Ephemeris Match Information For 011548140-05

No Significant Match Found

DV One-Page Summary

KIC: 11548140 Candidate: 5 of 5 Period: 146.834 d
KOI: K00256 Corr: No Ephemeris Match

Kp: 15.37 R*: 0.44 Rs Teff: 3440.0 K Logg: 4.82 Fe/H: 0.460



DV Fit Results:

Period = 146.83410 [0.00129] d
Epoch = 200.6404 [0.0053] BKJD
Rp/R* = 0.0603 [0.1269]
a/R* = 365.43 [2727.69]
b = 0.09 [82.33]
Seff = 0.14 [0.02]
Teq = 155 [5] K
Rp = 2.89 [6.09] Re
a = 0.4219 [0.0362] AU
Ag = 18009.54 [75983.26] [0.24σ]
Teffp = 2773 [2924] K [0.90σ]

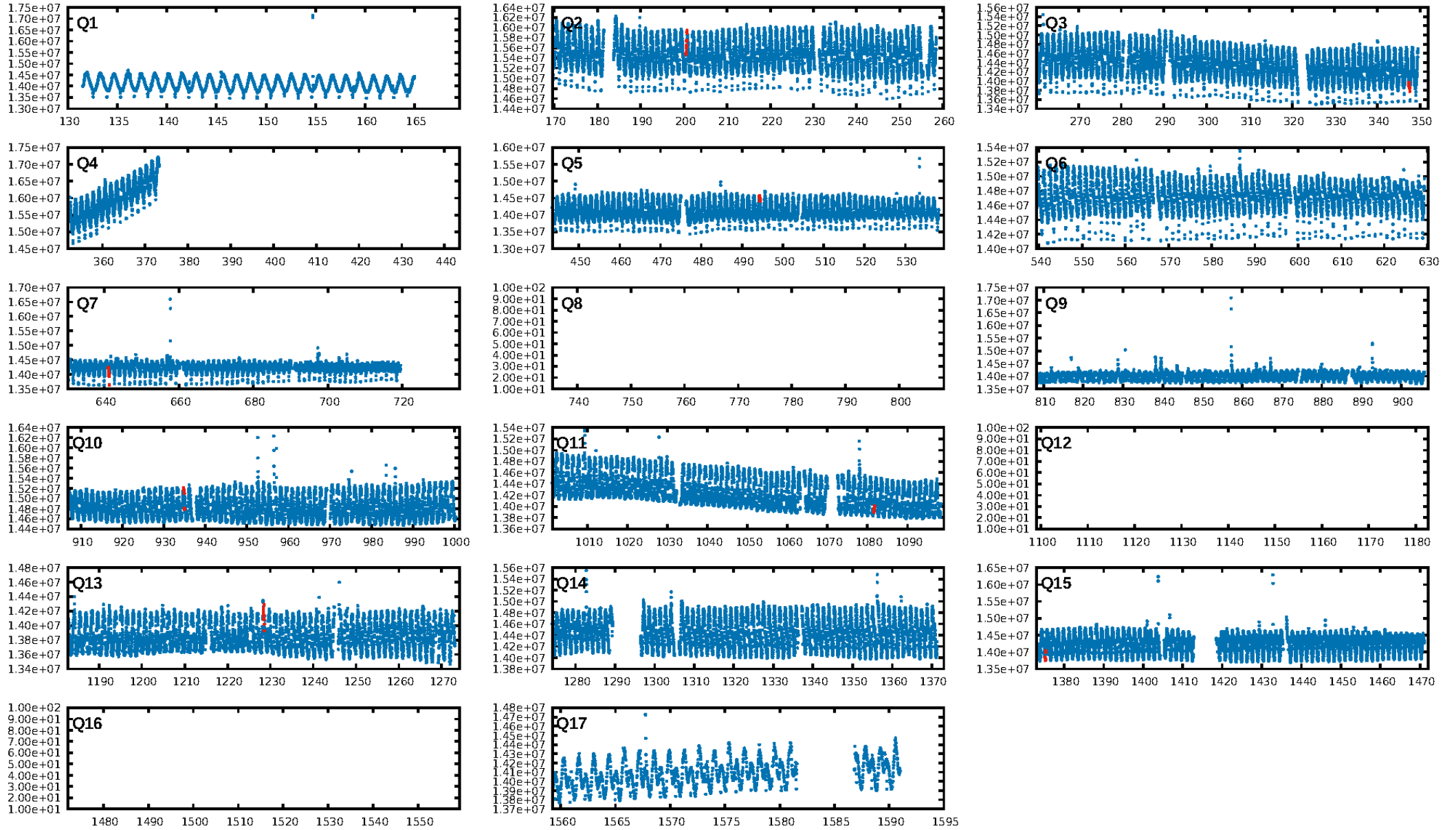
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [67.87σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 11.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.02e-12
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -0.001827
Centroid-sig: 44.3%
Centroid-so: 0.218 arcsec [0.63σ]
OotOffset-rm: 0.074 arcsec [0.23σ]
KicOffset-rm: 0.241 arcsec [0.31σ]
OotOffset-st: 2/4/0/1 [7]
KicOffset-st: 2/4/0/1 [7]
DiffImageQuality-fgm: 0.43 [3/7]
DiffImageOverlap-fno: 0.29 [2/7]

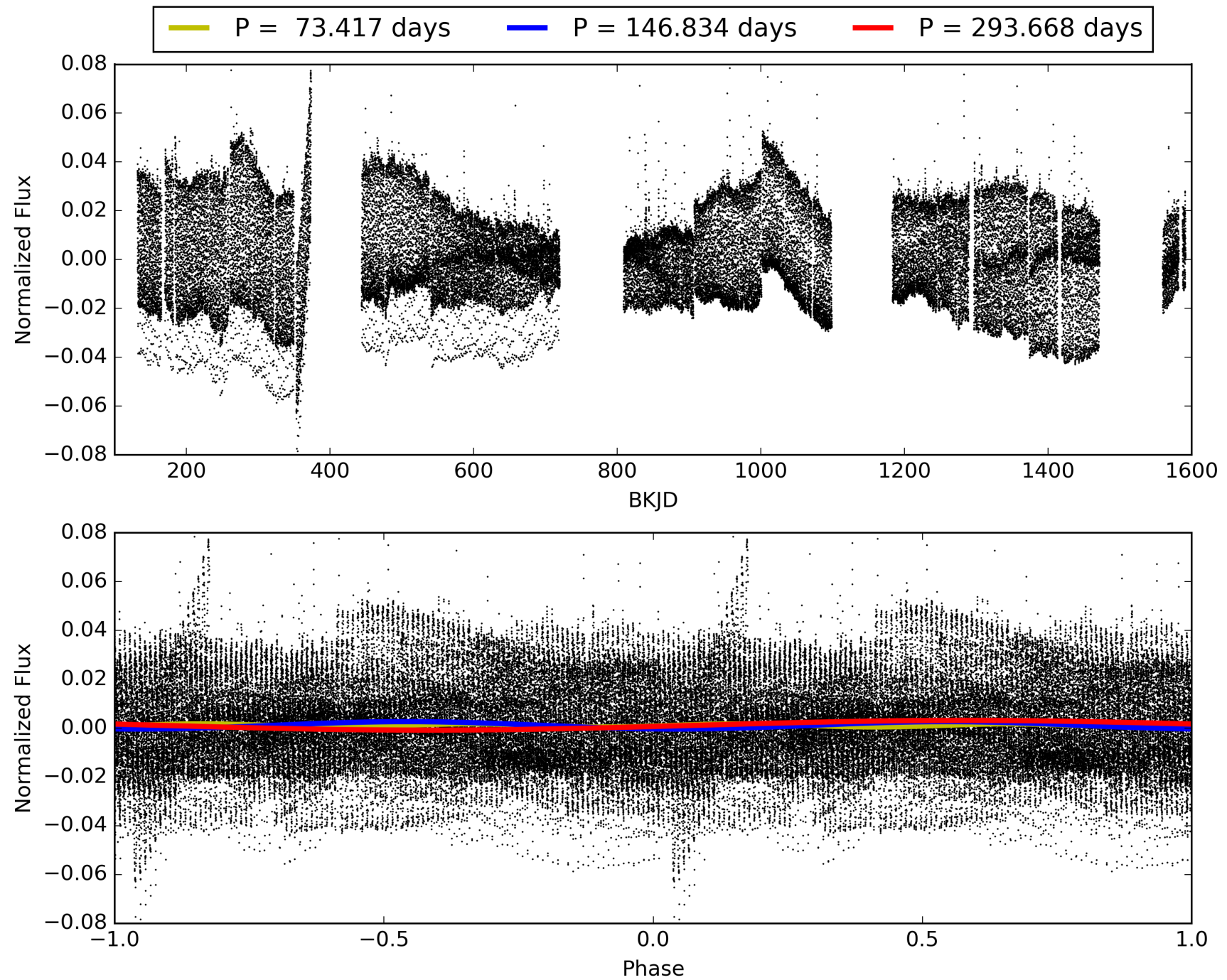
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:38:24 Z

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

TCE 011548140-05, PDC Light Curves

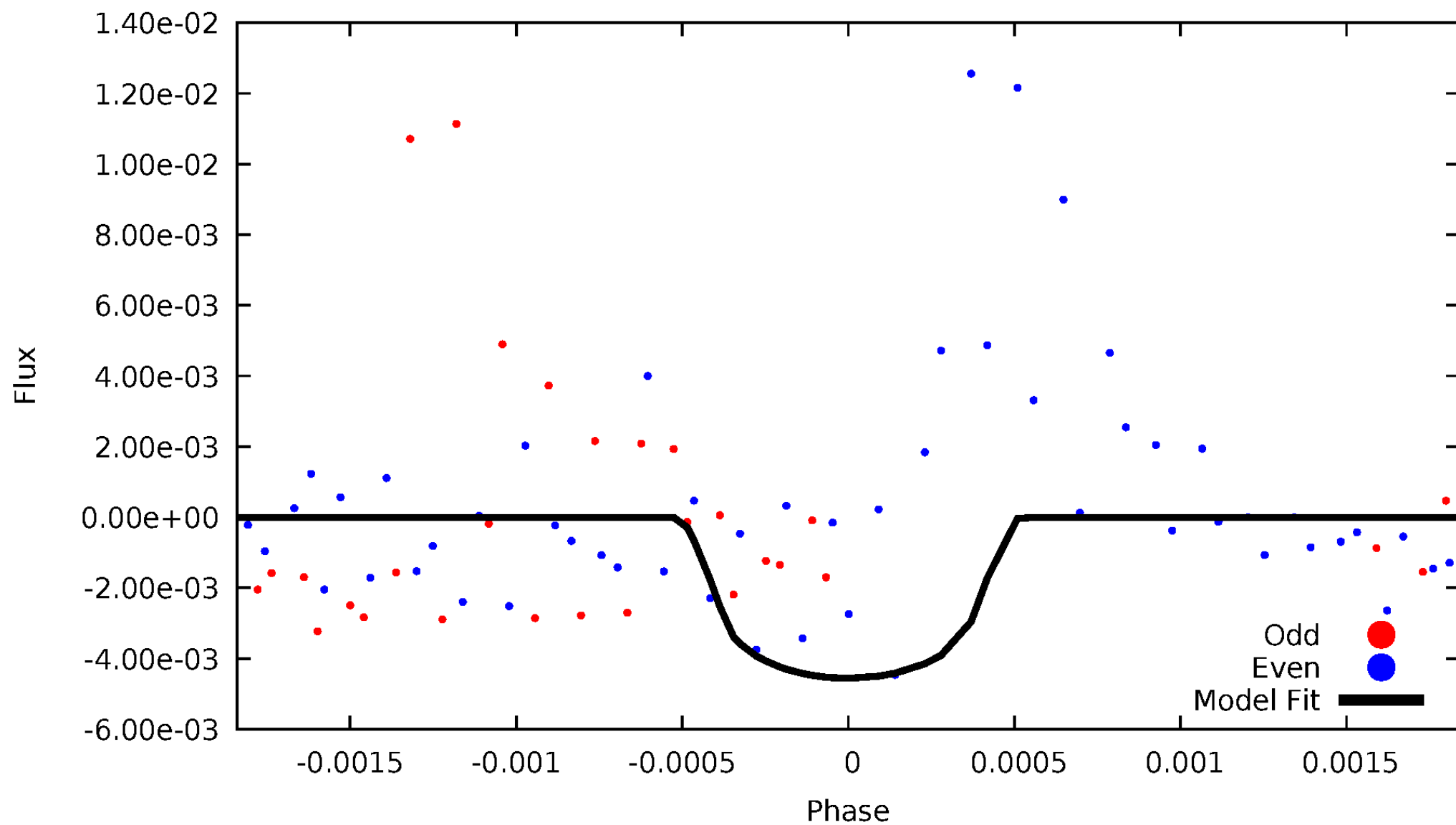


TCE 011548140-05



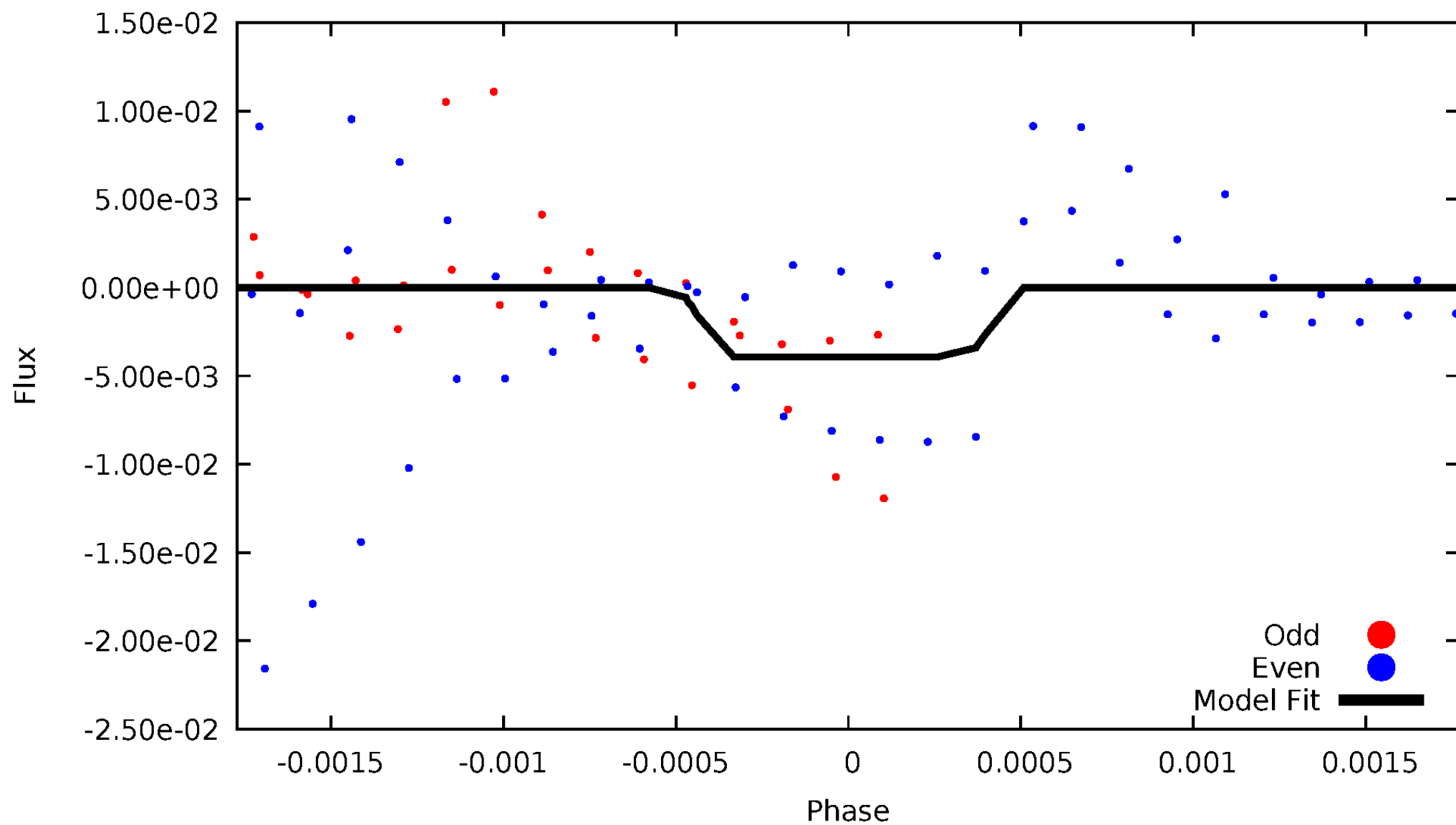
DV Odd/Even

TCE 011548140-05



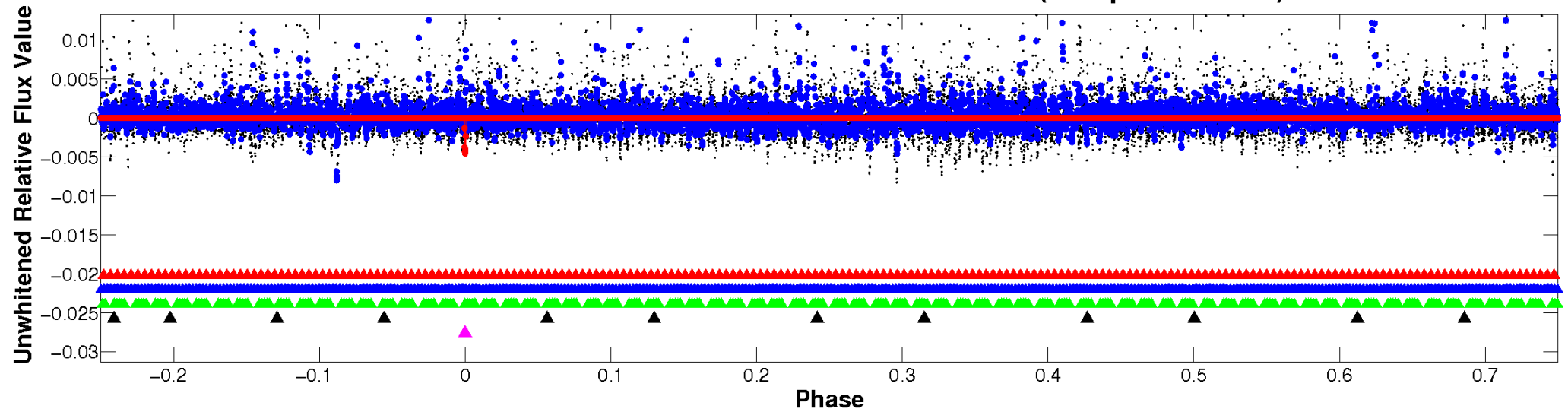
ALT Odd/Even

TCE 011548140-05

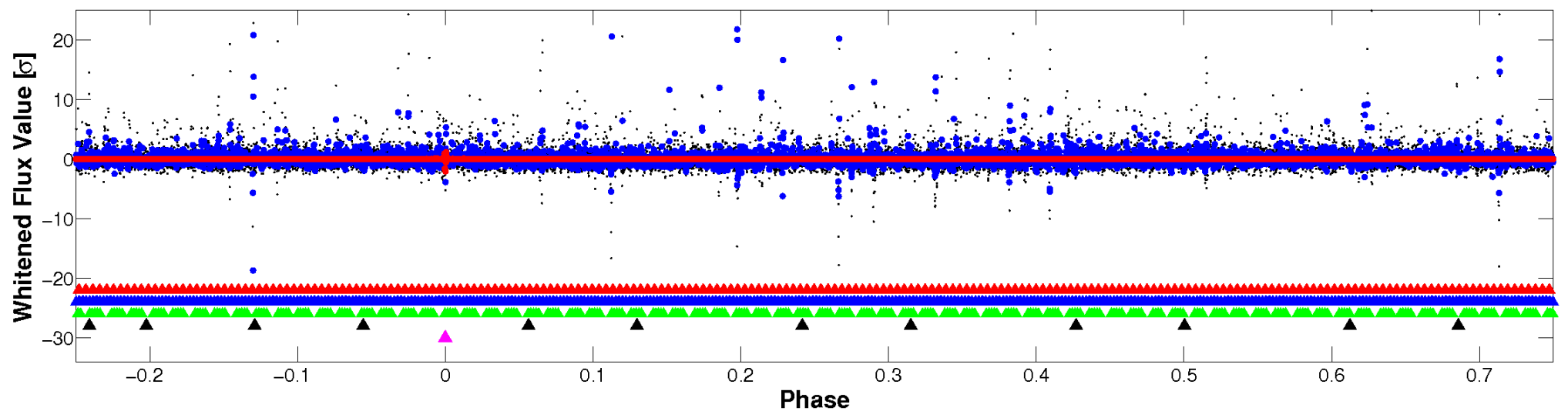


Non-Whitened Vs. Whitened Light Curve

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

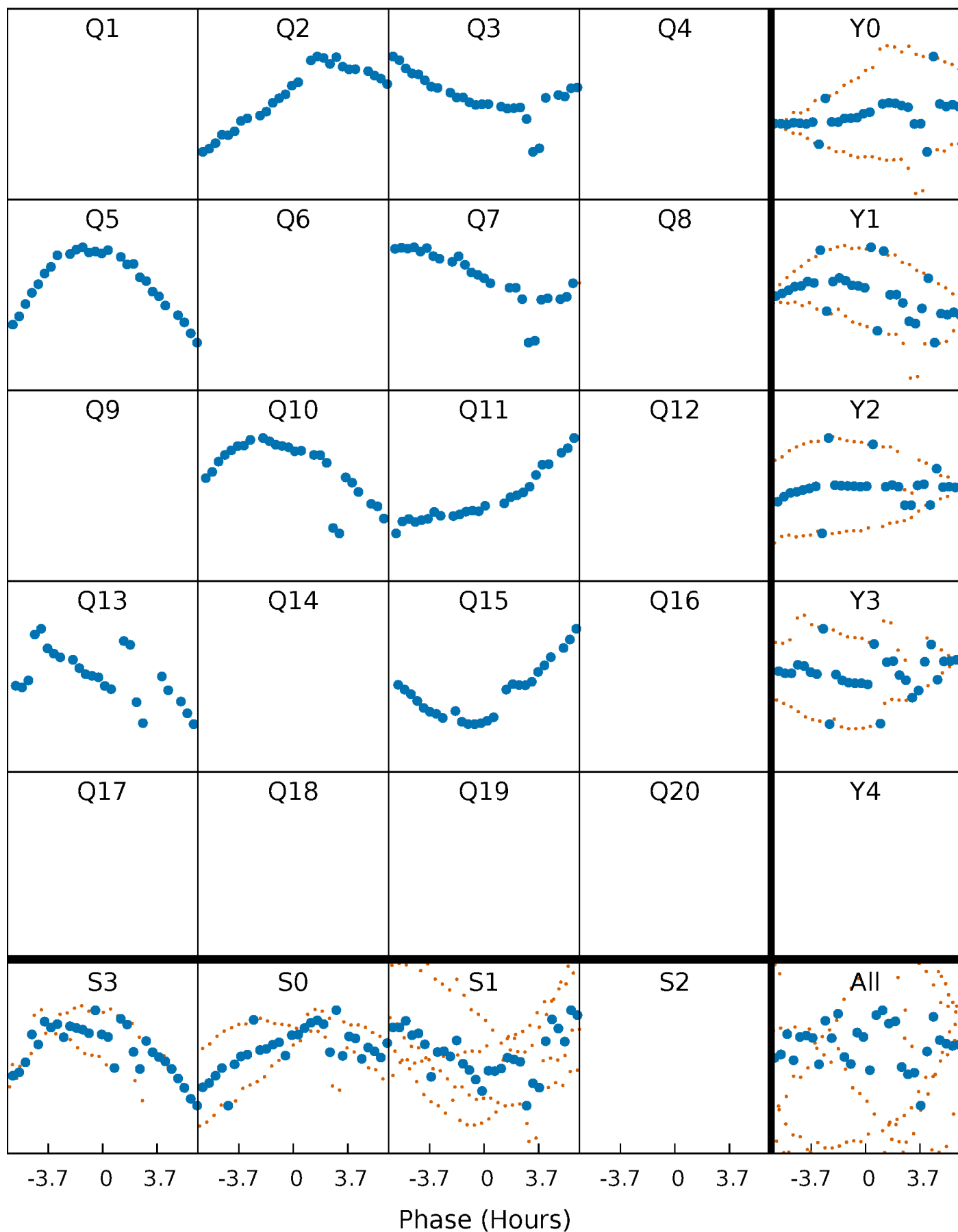


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



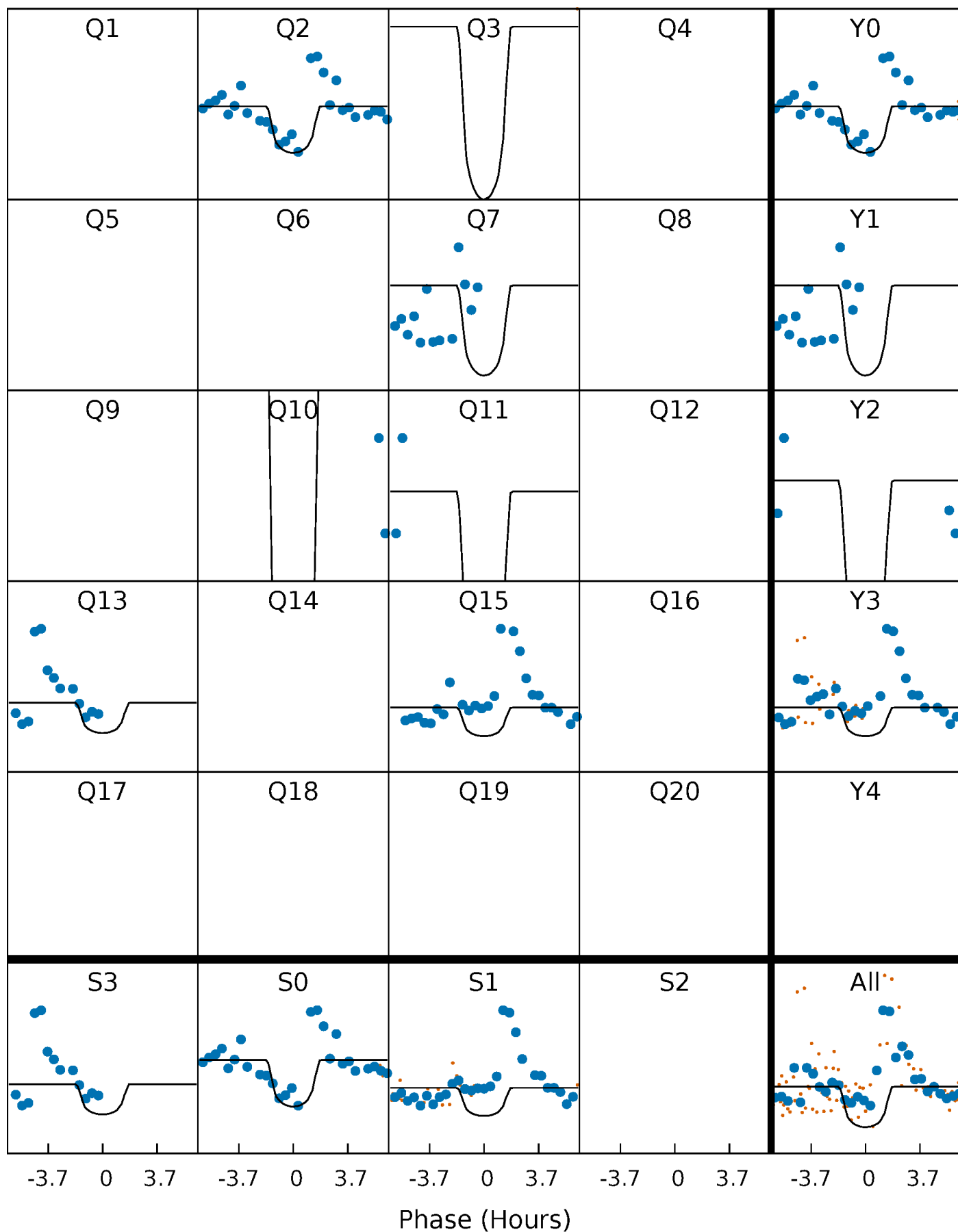
PDC Quarter-Phased Transit Curves

TCE 011548140-05 P=146.834095 Days $T_0=200.640362$ (BKJD)



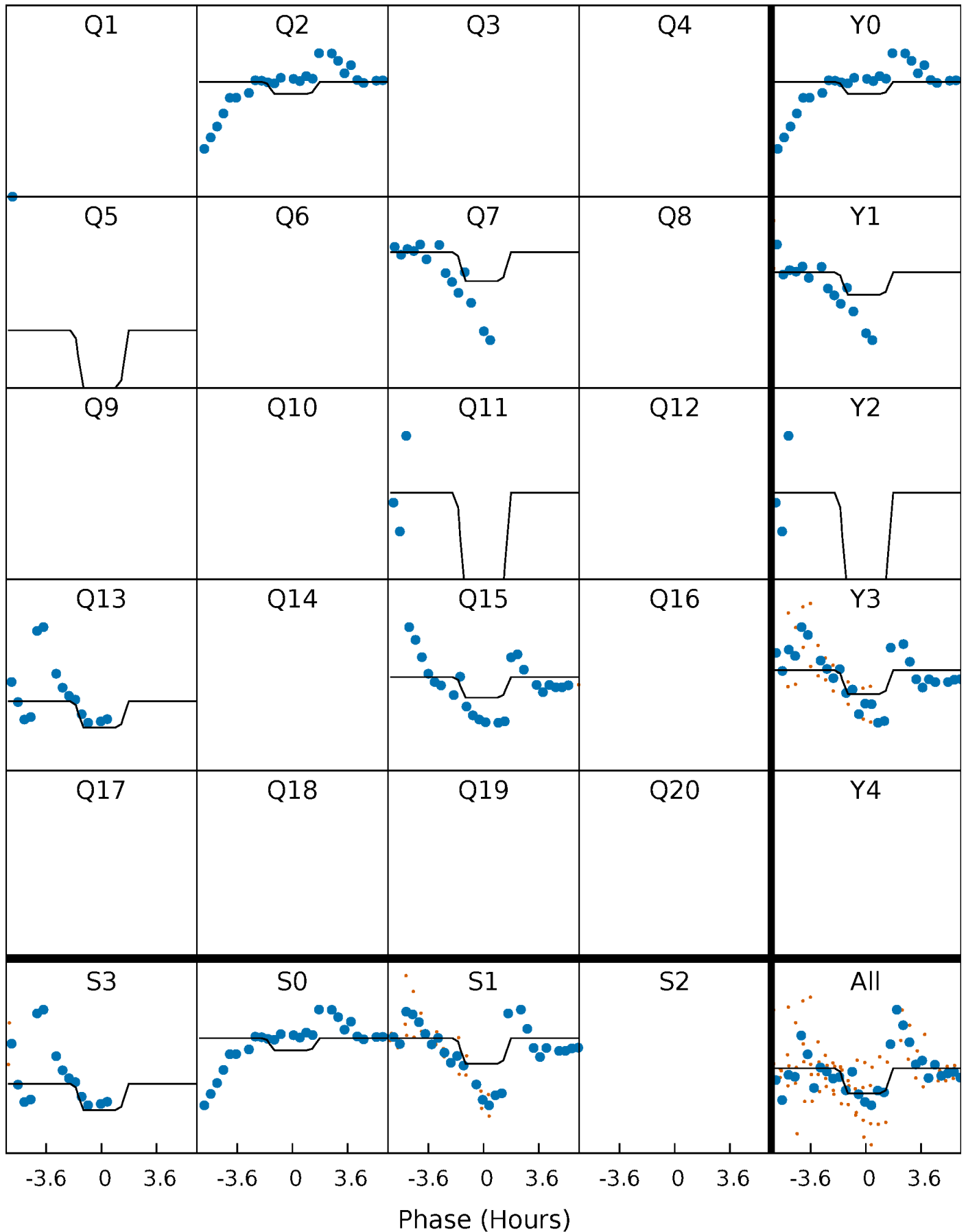
DV Quarter-Phased Transit Curves

TCE 011548140-05 $P=146.834095$ Days $T_0=200.640362$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

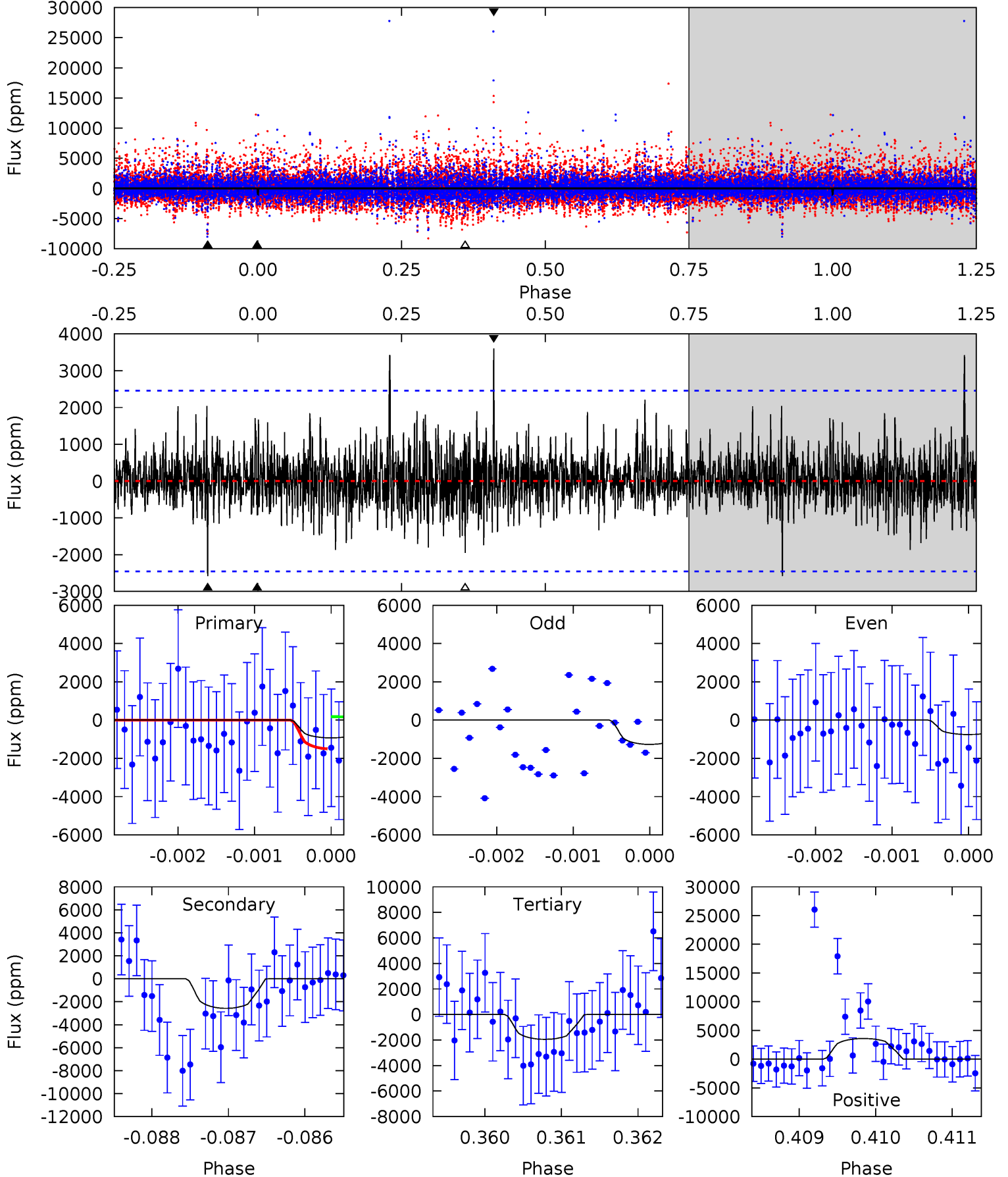
TCE 011548140-05 $P=146.836250$ Days $T_0=200.602765$ (BKJD)



DV Model-Shift Uniqueness Test

011548140-05, P = 146.834095 Days, E = 53.806267 Days

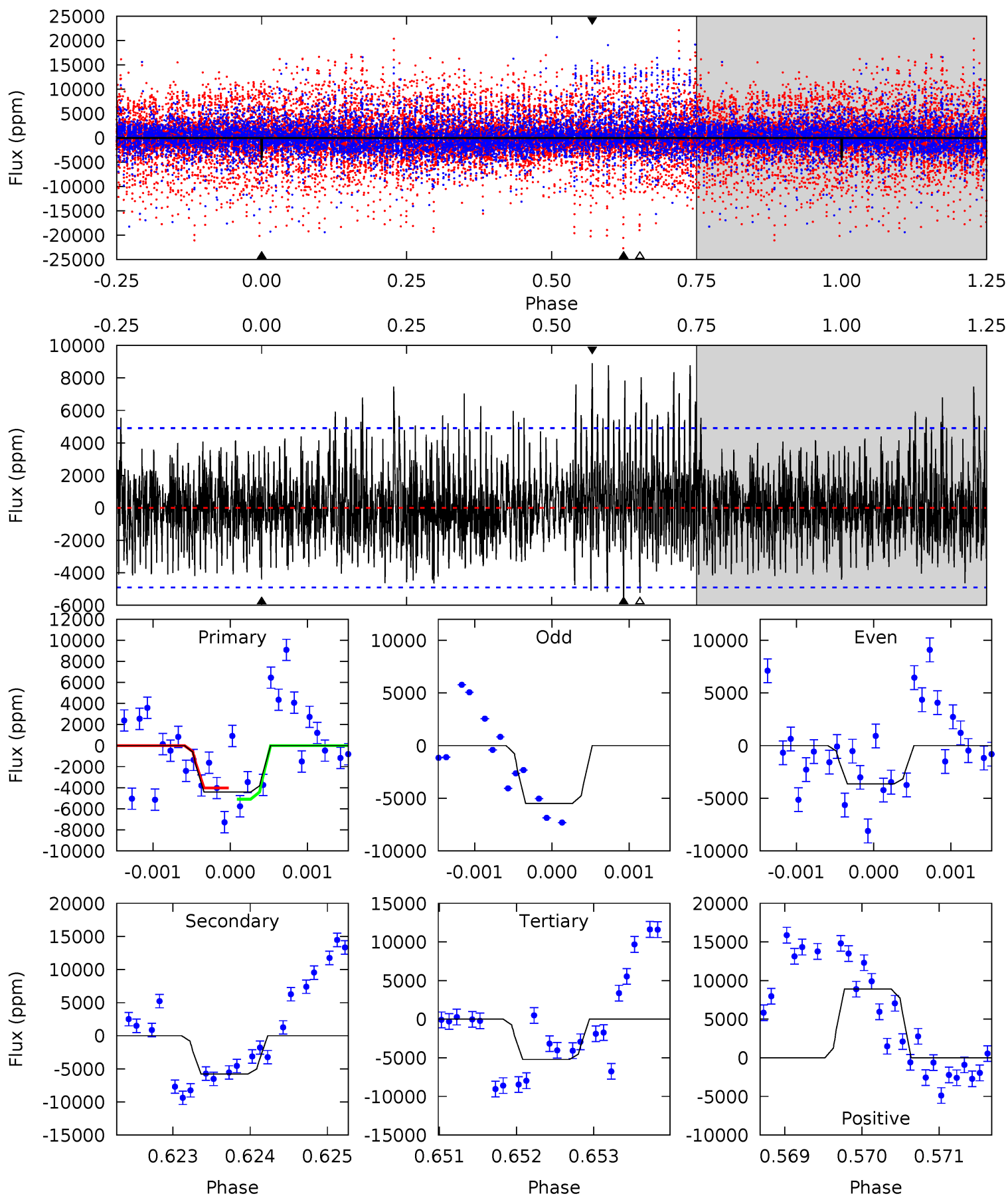
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.06	5.72	4.33	7.99	5.45	3.29	1.25	-2.27	-5.93	1.39	-2.27	0.47	0.46	0.58	1.35



Alt Model-Shift Uniqueness Test

011548140-05, P = 146.836250 Days, E = 53.766515 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.91	6.44	5.81	9.90	5.46	3.30	2.12	-0.90	-4.99	0.64	-3.45	0.86	0.86	0.61	0.58



Stellar Parameters For KIC 011548140

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	3440^{+68}_{-75}	$4.820^{+0.044}_{-0.040}$	$0.460^{+0.050}_{-0.150}$	$0.439^{+0.035}_{-0.052}$	$0.465^{+0.032}_{-0.060}$	$7.721^{+2.043}_{-1.247}$
	+2%/-2%	+1%/-1%	+11%/-33%	+8%/-12%	+7%/-13%	+26%/-16%
Source	SPE70	SPE5	SPE70	DSEP		

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

Secondary Eclipse Parameters for KIC 011548140-05 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-2577 ± 451	$5.84^{+5.25}_{-4.01}$	216^{+6}_{-6}	2692^{+1065}_{-411}	7612^{+68409}_{-5677}
Alt.	-5794 ± 899	$5.71^{+4.96}_{-3.94}$	217^{+6}_{-6}	3025^{+1417}_{-473}	$17739^{+165750}_{-12751}$

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 $A_{obs} \gg 1.0$

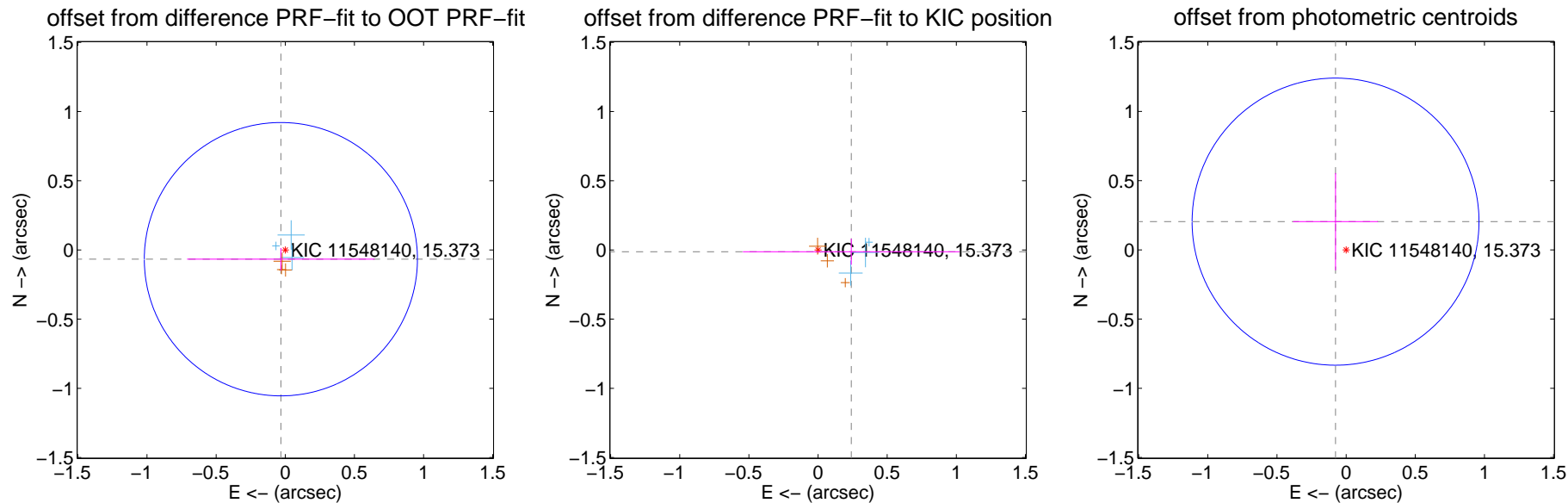
DV Centroid Data

Supplemental centroid analysis for 011548140-05. Kepler magnitude: 15.37. Transit SNR 7.17

There are 3 quarters with good PRF difference image offsets

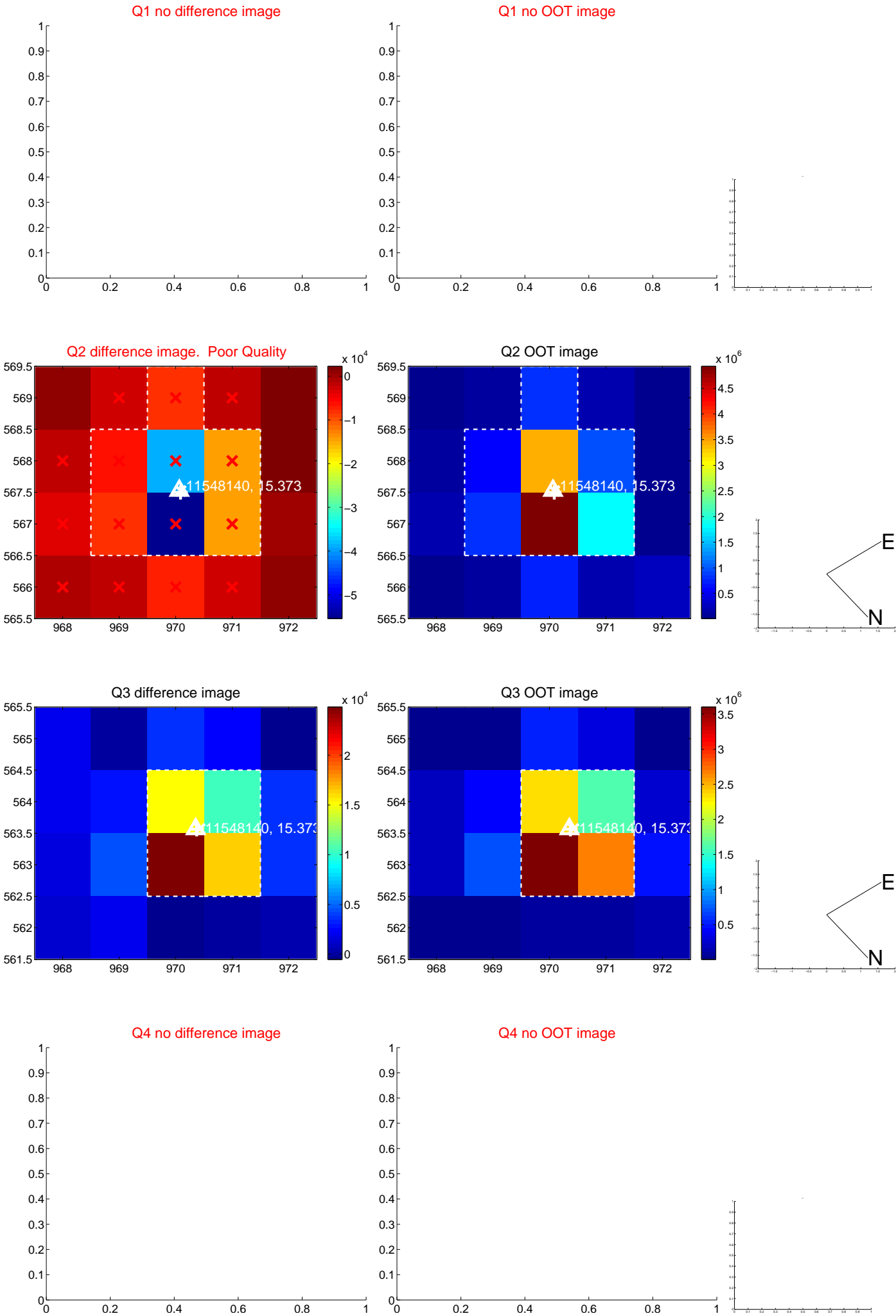
The direct PRF centroid is offset from the target star catalog position by about 0.44 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.074 ± 0.329	0.23	0.032 ± 0.678	-0.067 ± 0.081
PRF-fit source offset from KIC position	0.241 ± 0.779	0.31	-0.240 ± 0.784	-0.013 ± 0.094
photometric centroid source offset	0.22 ± 0.35	0.63	0.08 ± 0.31	0.20 ± 0.35

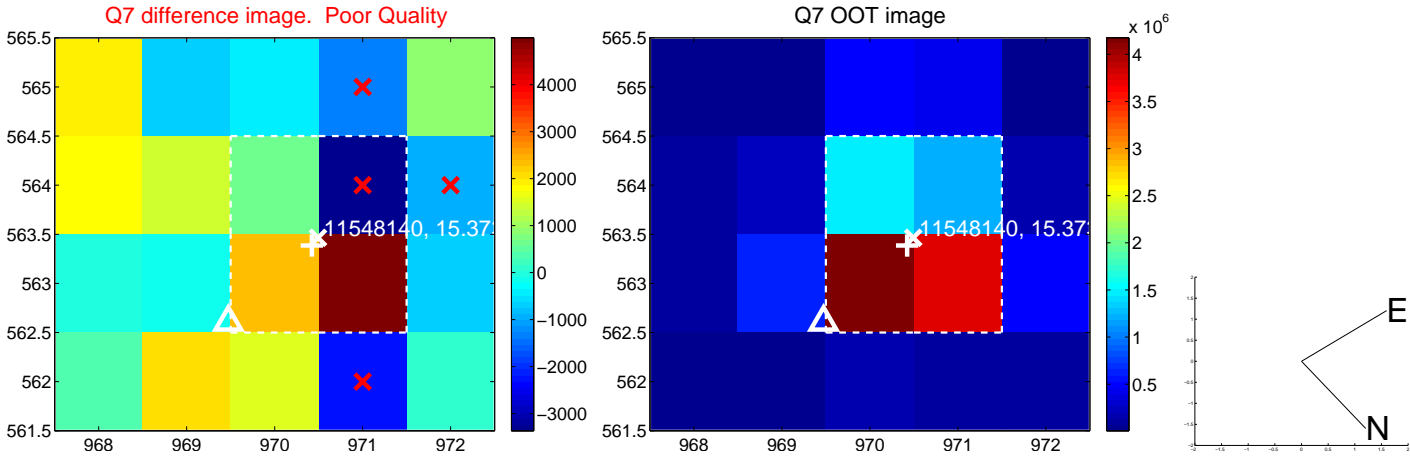
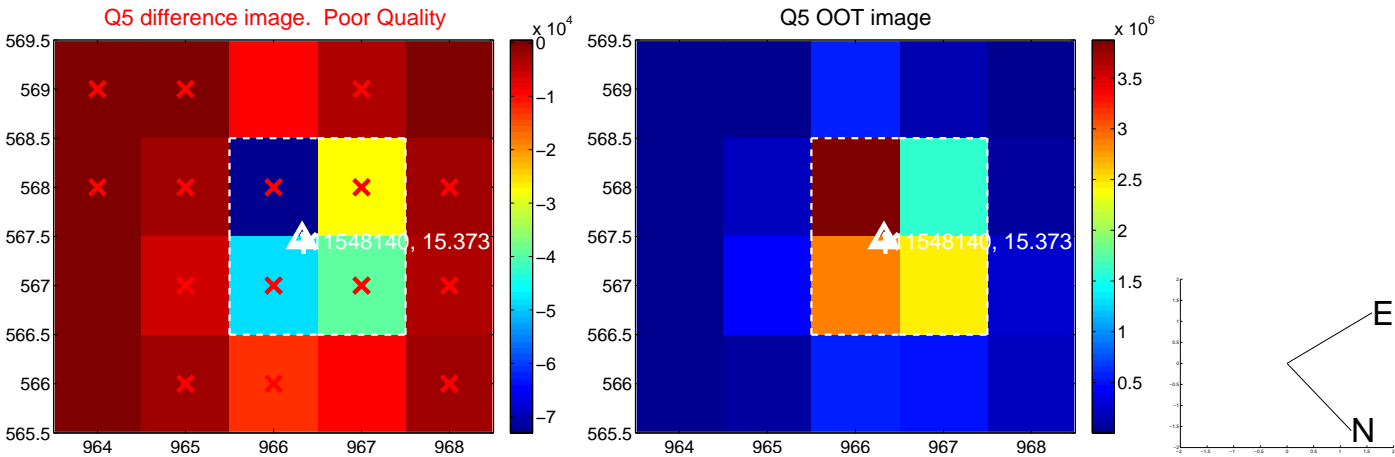


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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.

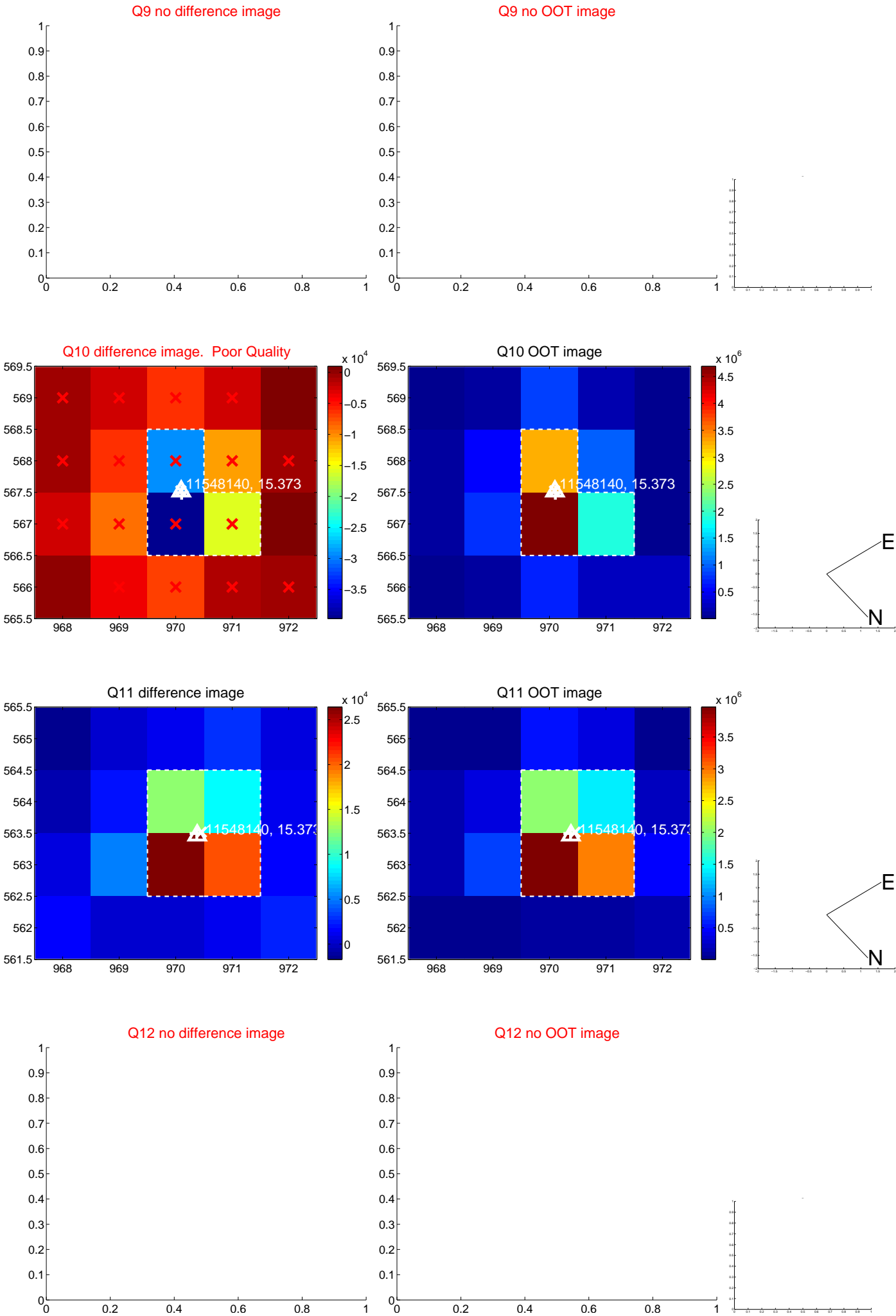
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



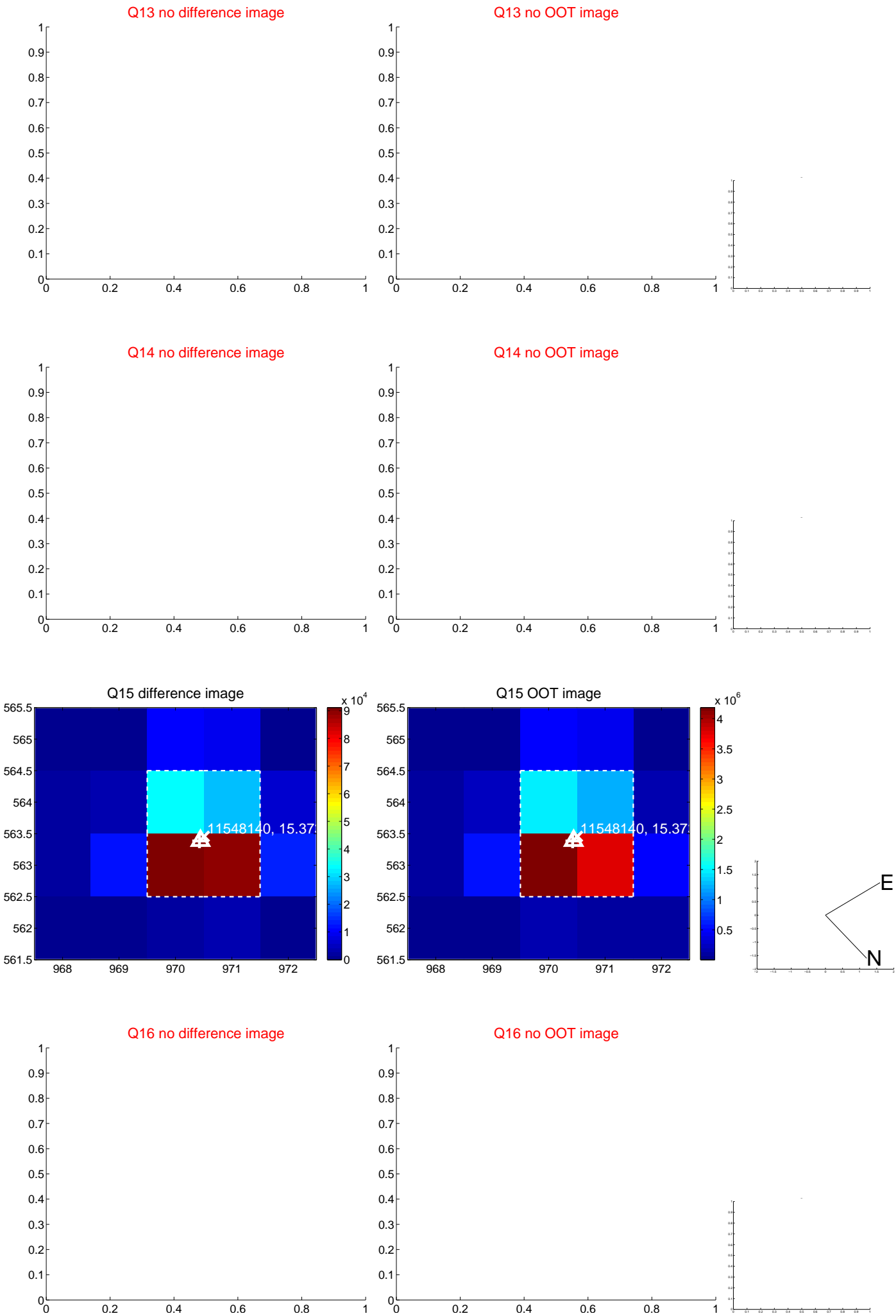
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



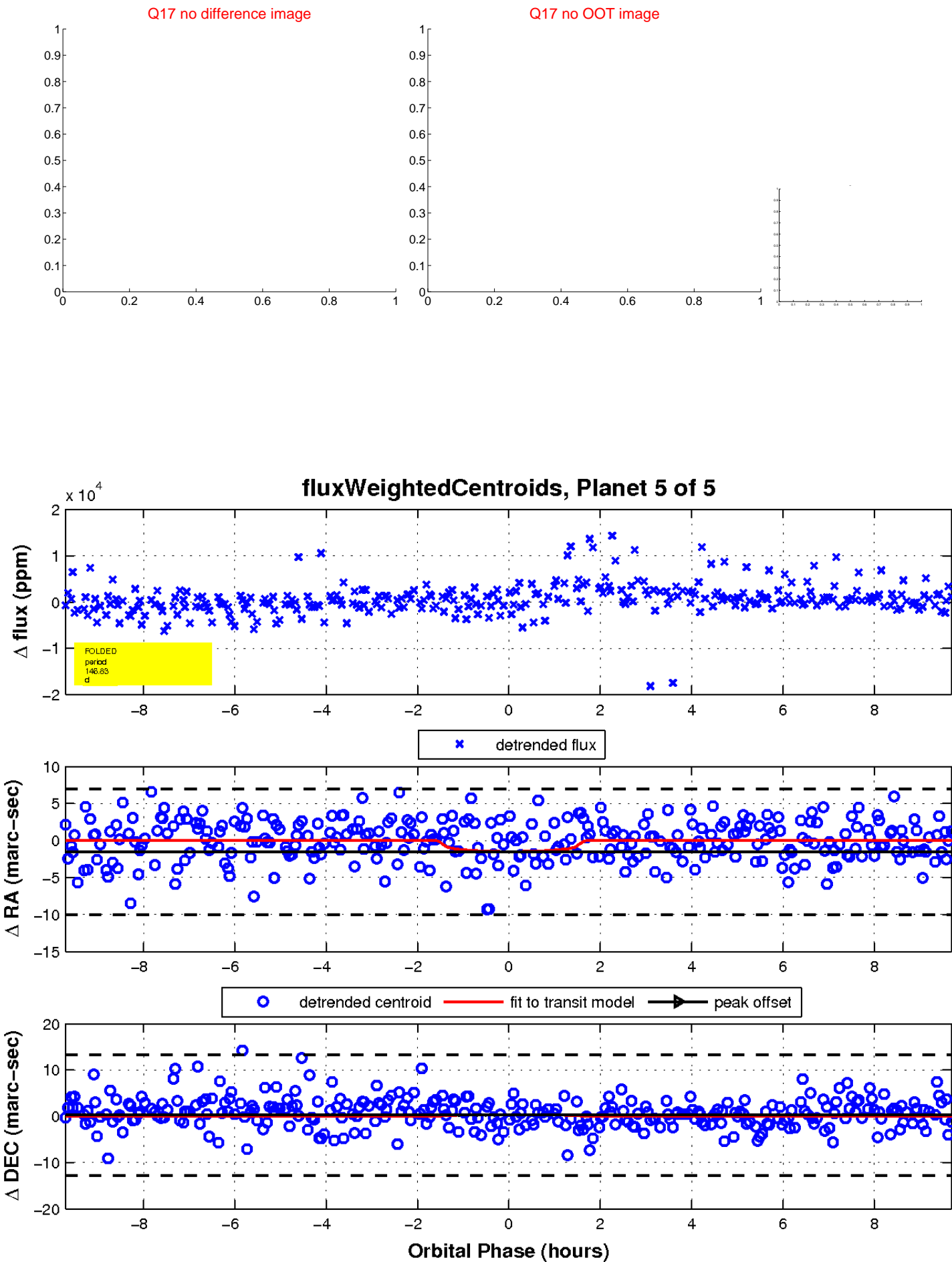
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

